

EVIDENTIARY HEARING  
BEFORE THE  
CALIFORNIA ENERGY RESOURCES CONSERVATION  
AND DEVELOPMENT COMMISSION

In the Matter of:	)	
	)	
Application for Certification	)	Docket No.
for the El Segundo	)	00-AFC-14
Modernization Project	)	
_____	)	

EMBASSY SUITES  
1440 EAST IMPERIAL HIGHWAY  
EL SEGUNDO, CALIFORNIA 90245

WEDNESDAY, FEBRUARY 19, 2003

9:09 a.m.

Reported by:  
James Ramos  
Contract No. 170-01-001

PETERS SHORTHAND REPORTING CORPORATION (916) 362-2345

COMMITTEE MEMBERS PRESENT

Robert Pernell, Presiding Member

William J. Keese, Chairman, Associate Member  
(via teleconference)

HEARING OFFICER AND ADVISORS

Garret Shean, Hearing Officer

E.V. "AL" Garcia, Advisor to Commissioner Pernell

STAFF AND CONSULTANTS PRESENT

David Abelson, Senior Staff Counsel

James W. Reede, Jr., Project Manager

Joseph M. Loyer

Obed Odoemelam

Richard Sapudar

Rick York

Peter Raimondi, Professor of Biology  
University of California Santa Cruz

Gregor M. Cailliet, Professor  
Michael S. Foster, Professor of Marine Science  
California State University  
Moss Landing Marine Laboratories

Noel Davis, Vice President  
Chambers Group

James Schoonmaker, Principal  
Pacific Group Electric Power, LLC

Eric Knight

Bill Kanamoto

PUBLIC ADVISER

Roberta Mendonca

APPLICANT

John McKinsey, Attorney,  
Terry German  
Livingston and Mattesich

Ron Cabe, Project Manager  
David Lloyd, Secretary  
El Segundo Power II LLC  
NRG Energy, Inc.

Tim E. Hemig, Manager, Environmental Services  
NRG Energy, Inc.

Tim Murphy  
Robert Collacott, Manager, Water Quality  
URS Corporation

Charles Mitchell, President, Senior Scientist  
MBC Applied Environmental Sciences

Mark Kodis, Engineering Manager  
Western Region

INTERVENORS

Steve Fleischli, Executive Director  
Santa Monica Baykeeper  
Heal The Bay

Richard Ambrose, Professor  
Department of Environmental Health Sciences  
University of California at Los Angeles

Bob Perkins  
Michelle Murphy  
Murphy/Perkins

Richard G. "Nick" Nickelson

Elsie Cripe

ALSO PRESENT

Tom Luster  
California Coastal Commission

Guangyu Wang, Staff Scientist  
Santa Monica Bay Restoration Commission

ALSO PRESENT

William T. Vanwagoner  
Los Angeles Department of Water and Power

Charles B. Turhollow, Assistant Division Manager  
Department of Public Works  
City of Los Angeles

Mark Tettemer, Recycled Water Project Manager  
West Basin Municipal Water District

James E. Miner, Executive Vice President  
Gunderboom, Incorporated

Lee Peterson  
Daily Breeze

John Yee, Senior Air Quality Engineer  
Ken Coats, Staff Engineer  
South Coast Air Quality Management District

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## P R O C E E D I N G S

9:09 a.m.

PRESIDING MEMBER PERNELL: Good morning;  
this is a continuation of the El Segundo hearing.  
My name is Commissioner Pernel; I'm the Presiding  
Member of the Committee. Commissioner Keese is  
the Associate Member who had to be back in  
Sacramento on business.

To my right is my Advisor, Al Garcia;  
and to my left is the Hearing Officer, Mr. Shean.  
And Mr. Shean will be conducting the hearing  
today.

HEARING OFFICER SHEAN: Thank you,  
Commissioner. If we could have the parties who  
are present identify themselves, beginning with  
the applicant.

MR. MCKINSEY: This is John McKinsey for  
El Segundo Power II, LLC; I'm the General Counsel  
for counsel for the project. And with me I have  
various members of El Segundo Power II, LLC, and  
their consultants.

HEARING OFFICER SHEAN: Okay, this is  
more or less for the purposes of stating an  
appearance.

MR. ABELSON: Yes, thank you, Officer

1 Shean. My name is David Abelson; I am Senior  
2 Staff Counsel. We have a number of members of the  
3 California Energy Commission Staff here today.

4 MR. FLEISCHLI: Steve Fleischli, The  
5 Santa Monica Baykeeper, on behalf of Intervenor  
6 Santa Monica Baykeeper and Heal The Bay.

7 HEARING OFFICER SHEAN: All right.

8 MR. MINER: Jim Miner, Gunderboom,  
9 Incorporated.

10 HEARING OFFICER SHEAN: Okay, let's do  
11 the other parties here.

12 MS. MURPHY: Michelle Murphy and Nick  
13 Nickelson --

14 HEARING OFFICER SHEAN: All right, for  
15 the moment, since he's not a party, let's just let  
16 that go through.

17 MS. MURPHY: Okay. Michelle Murphy and  
18 Nick Nickelson, Intervenor.

19 HEARING OFFICER SHEAN: All right. If  
20 there are members of the audience who are from our  
21 either sister state agencies or other local  
22 agencies or cities, if we could have you please  
23 come forward and -- Mr. Luster, having  
24 participated yesterday, we'll give you the lead  
25 here.

1 MR. LUSTER: Thank you. Tom Luster,  
2 California Coastal Commission.

3 PRESIDING MEMBER PERNELL: Welcome.

4 HEARING OFFICER SHEAN: All right.

5 MR. VANWAGONER: William Vanwagoner, Los  
6 Angeles Department of Water and Power.

7 HEARING OFFICER SHEAN: Thank you.

8 MR. TURHOLLOW: Chuck Turhollow, Bureau  
9 of Sanitation, Department of Public Works, City of  
10 Los Angeles.

11 HEARING OFFICER SHEAN: Thank you very  
12 much.

13 MR. WANG: Guangyu Wang, Santa Monica  
14 Bay Restoration Commission.

15 HEARING OFFICER SHEAN: Thank you, Mr.  
16 Wang.

17 MR. TETTEMER: Mark Tettermer from West  
18 Basin Municipal Water District.

19 HEARING OFFICER SHEAN: Thank you.

20 PRESIDING MEMBER PERNELL: Welcome.

21 MR. ABELSON: Mr. Shean, if I may, one  
22 other comment before we go on?

23 HEARING OFFICER SHEAN: Yes.

24 MR. ABELSON: I received a call this  
25 morning from Bryant Chesney from the National

1 Marine Fisheries Service. Unfortunately because  
2 of weather problems where he was located for  
3 flight purposes he had intended to be here today  
4 and to actually present comments, which have been  
5 filed. And he wanted us to simply inform you that  
6 he would like those comments entered into the  
7 record and read into the record. And he  
8 apologizes for the weather flight problems.

9 HEARING OFFICER SHEAN: Okay, just so  
10 I'm likely clear on what you're referring to, that  
11 would be -- at least what I have is a document  
12 entitled, National Marine Fisheries Service's  
13 response to direct testimony; a three-page  
14 document signed by a Rodney R. McInnis.

15 MR. ABELSON: Yes, and at the end of the  
16 document there's an indication in the last  
17 paragraph of, NOAA Fisheries will make every  
18 attempt to provide additional public testimony at  
19 the hearing and answer questions. If Fisheries is  
20 unable to attend, please contact Mr. Bryant  
21 Chesney. And it turned out that he was the one  
22 who was going to be here for them, and  
23 unfortunately that didn't work out.

24 HEARING OFFICER SHEAN: All right.  
25 Well, we'll get to that when we get to that.

1 MS. MENDONCA: Roberta Mendonca, the  
2 Public Adviser. If you would want, at the  
3 appropriate time I'd be happy to summarize that  
4 for the record, and make sure that it's entered.

5 HEARING OFFICER SHEAN: All right.  
6 Depending upon the amount of time we have  
7 available we'll either read it or just enter it,  
8 if it goes without objection.

9 CHAIRMAN KEESE: Mr. Shean.

10 HEARING OFFICER SHEAN: Yes.

11 CHAIRMAN KEESE: This is Bill Keese;  
12 I'll be here until 10:00 and then after the  
13 Commission meeting.

14 HEARING OFFICER SHEAN: Thank you,  
15 Commissioner. Welcome.

16 CHAIRMAN KEESE: Thank you.

17 PRESIDING MEMBER PERNELL: Thank you,  
18 Commissioner. We had excused you, but now that  
19 you're back --

20 HEARING OFFICER SHEAN: All right, we  
21 have just one housekeeping measure to sort of take  
22 care of.

23 Yesterday we ran the total times and we  
24 have the applicant having used an hour and 43  
25 minutes. And we showed the staff side to have

1       used four hours and 41 minutes.

2               But since a significant portion of that  
3       was questions from the Committee and the panel up  
4       here, what we're going to do is add back enough  
5       time to basically give you about an hour and a  
6       quarter remaining. And hopefully that will be  
7       close to enough for you to do what you need to do.  
8       And if we get really squeezed on that, we'll try  
9       to find some additional time.

10              This morning we had scheduled initially  
11       the testimony of Mr. Ambrose on behalf of the  
12       Santa Monica Baykeeper. I've been informed by Mr.  
13       Fleischli that he is not available at this  
14       instant, but will be available soon by phone.

15              MR. FLEISCHLI: Hopefully ten minutes;  
16       no, he'll be here.

17              HEARING OFFICER SHEAN: Oh, he's going  
18       to physically be here?

19              MR. FLEISCHLI: Yeah, he's driving --

20              HEARING OFFICER SHEAN: All right.  
21       Well, in addition to that, I think the Committee  
22       feels we're fortunate to have Mr. James Miner, who  
23       is with Gunderboom, here to make a presentation  
24       with respect to the Gunderboom technology. And he  
25       has not only some slides, but also some pieces of

1 the, I call it fabric material that is used as  
2 part of the curtain or screen.

3 So, unless the parties want to go  
4 forward with something else prior to Mr. Miner, we  
5 can fill this time with him and get the  
6 information that we can about the --

7 MR. FLEISCHLI: Can I just ask a  
8 clarifying question as to whether or not it's the  
9 Committee that's calling this witness, or whether  
10 it's the applicant that's calling this witness?  
11 Because I don't think he was on any list.

12 HEARING OFFICER SHEAN: He's not on any  
13 list. And as I indicated yesterday, there  
14 appeared to the Committee to be two holes in the  
15 record as far as what we felt was needed for  
16 purposes of the Commission and Committee-generated  
17 documentation. One of those being Gunderboom, and  
18 the other being -- or let me just say, a marine  
19 life exclusionary system. But I think we're going  
20 to sort of, like we use Kleenex and Scotch Tape,  
21 call it the Gunderboom.

22 And the game warden aspect of it. And I  
23 think since your comments, for example, that  
24 include the, off the top of my head I want to say  
25 Pisces report, but that's something close to it,

1 had some comments with respect to Gunderboom,  
2 which are going to be in the documentation of the  
3 proceeding, that we ought to get something from  
4 the company.

5 So, I think, in essence, we're kind of  
6 welcoming him, whether you want to call it we are  
7 calling him, maybe a technical point. And if it  
8 needs to be a technical point, then the answer is  
9 yes.

10 MR. REEDE: Excuse me. Who just chimed  
11 in on the phone?

12 DR. RAIMONDI: Peter Raimondi.

13 MR. REEDE: Okay, thank you. Dr.  
14 Raimondi's on the line.

15 HEARING OFFICER SHEAN: Okay. Mr.  
16 Miner, if you will, why don't you introduce  
17 yourself. I guess we're going to have him sworn  
18 in and then you can proceed, please.

19 Mr. Miner, before you sit down, if you  
20 will turn toward our reporter here.  
21 Whereupon,

22 JAMES E. MINER  
23 was called as a witness herein, and after first  
24 having been duly sworn, was examined and testified  
25 as follows:



1 HEARING OFFICER SHEAN: Thank you.

2 DIRECT TESTIMONY

3 MR. MINER: Thank you, all. Good  
4 morning. My name is Jim Miner; I'm Executive Vice  
5 President for Gunderboom, Incorporated. I'm based  
6 out of Anchorage, Alaska.

7 What I wanted to do this morning is give  
8 a very brief overview of Gunderboom as a  
9 corporation, and some history in regard to this  
10 particular project and our marine life exclusion  
11 system.

12 If the forum allows it, I am completely  
13 open to take questions as we go through the  
14 presentation.

15 Gunderboom was a company formed in 1995  
16 by marine and oilfield specialists to further  
17 expand technologies that were developed in 1986.  
18 We come from Alaska, and folks very frequently  
19 ask, you know, how did you start in Alaska, you  
20 know, why is the corporation there.

21 Actually Gunderboom presently is in  
22 three of the corners of the United States. We  
23 have offices in Portland, Maine, and a new  
24 manufacturing facility in Orlando, Florida.

25 Very frequently we get asked questions

1 relative to open ocean applications, very  
2 significant tidal influence, very significant  
3 weather forces of the marine environment.

4 In Anchorage, our day-to-day tidal  
5 activity is a 30- to 35-foot exchange. Our first  
6 fabric systems were developed in 1985 and 1986,  
7 used in turbidity control to protect areas of  
8 dredging in Homer, Alaska, which is the world's  
9 largest commercial halibut port, and also a very  
10 high level recreational and commercial salmon  
11 spawning area and fishing area.

12 We developed the first product for that  
13 application. It survived about six months in the  
14 water there, very early technologies, and in very  
15 extreme conditions. And it was completely  
16 successful in the application. That started the  
17 development.

18 And then in '95 the group of specialists  
19 got together to further those technologies. Hal  
20 Dreyer is our CEO. I report to Hal. He was the  
21 President and CEO of Underwater Construction,  
22 giving him, individually, about 30 years in the  
23 marine construction/engineering environment.

24 Petrovich, Nottingham and Drake, they're  
25 a marine and heavy civil engineering firm. They

1 are our backup. We have 40 engineers that work  
2 specifically in that arena that work with us out  
3 of Alaska in Seattle and also Vancouver.

4 And then one of our first customers that  
5 became part of the interest in the corporation was  
6 Mirant Corporation, a merchant energy group out of  
7 Atlanta, Georgia.

8 I'm going to jump through these slides  
9 so I don't take too much of the group's time, but  
10 the basic concept of an underwater engineered  
11 aquatic filter barrier system has a fabric  
12 material that is highly porous. In the marine  
13 life exclusion environment we perforate these  
14 fabrics to allow the passage of large volumes of  
15 water in a non-biofouling or clogging environment,  
16 but also have these perforations, which are done  
17 by lasers, small enough so that they exclude the  
18 larvae, eggs and juveniles of targeted species in  
19 those arenas.

20 A picture is worth a thousand words, but  
21 the system would look something like this. It  
22 actually has a forward panel and a back panel;  
23 there's an air delivery system that's delivered  
24 inside the fabric components that's designed to  
25 vibrate and shake the fabric in the water,

1 basically pushing off any silt or materials that  
2 may have collected on it, resuspending them in the  
3 water column.

4 The system is extremely durable and  
5 rugged. We could probably take anybody in the  
6 room's car and hook this onto it and pick it up  
7 off the ground without any issue. The tensile  
8 strengths are extremely rigid. And then we back  
9 the system up with what's called spectra.

10 And for anyone who knows what spectra  
11 is, technically it's one of the strongest  
12 materials in the world. And it was originally  
13 used for long-line halibut fishing in commercial  
14 applications. It's not necessary that we put this  
15 in the system, but we do just for additional  
16 strength.

17 I want to move to something that's very  
18 important to us, and that is that the Gunderboom  
19 system is looked at as best technology available,  
20 and it's currently incorporated into several  
21 permits for marine life exclusion.

22 The Bethlehem Energy Center in Albany,  
23 New York, is a fixed, panelized, submerged system.  
24 The Bowline Point Unit 3 in Haverstraw, New York,  
25 is an anchored floating system. The Lovett

1       Generation System is a permitted installation;  
2       it's an anchored floating.

3               And then the Astoria Queens, which is a  
4       Reliant Energy project, is a cartridge system, a  
5       new Gunderboom development that we're working with  
6       Reliant Energy on the original Orion Power  
7       application at Astoria.

8               Okay, the marine life exclusion system,  
9       this is an example of one of the test deployments.  
10       And I heard the Pisces report mentioned. I  
11       believe this is back in the '95, '96 timeframe  
12       where the system was deployed at Lovett, which is  
13       Mile 48 in the Hudson River. This is a tidally  
14       influenced part of the river; fairly heavily  
15       saline water. And the tidal, actually currents  
16       can run three to four knots at this location where  
17       some of the early testing was done.

18              Okay, the technical specifications of  
19       the system. The fabric porosity, actually the  
20       apparent opening size of the fabric varies  
21       between, it's actually down to about 70 microns up  
22       to 120 microns or thereabouts. We have 12 to 13  
23       fabric densities that we test in applications to  
24       see which is best for that particular location.

25              We perforate the system with a laser

1 perforation device actually creating patterns and  
2 holes that are going to match the specific biology  
3 of the region that we're working; and also still  
4 provide the tensile strength requirements that we  
5 have for currents and flows.

6 Our fabric flow rates are from five to  
7 12 gallons per minute. We can engineer to higher  
8 or lower depending on what we're dealing with, but  
9 those are the targets. And deep waters, such as  
10 exist in the El Segundo application are actually a  
11 plus to us, as the surface areas are basically  
12 determined by the gallons per minute of flow times  
13 the perforations that are required to exclude the  
14 species. And that yields the footprint or the  
15 overall amount of fabric that you would need.

16 And this particular application at  
17 Lovett is just under 400,000 gallons per minute.  
18 And so the flow rates that exist at the El Segundo  
19 are basically 25 percent of what we did here. So  
20 we consider that a relatively low flow  
21 application.

22 Again, we talk about -- I'm going to get  
23 into a little bit about the entrainment  
24 application here. In this particular application  
25 we yielded over 80 percent reduction in

1       entrainment and impingement of the species that  
2       were targeted. A hundred percent of exclusion is  
3       the target, obviously. And what happened here in  
4       this test is that they actually had some backwash  
5       through an abandoned discharge that was within the  
6       boom. Because theoretically, if you've got a  
7       complete seal enclosure, you have to have failure  
8       in order for there to be any entrainment or  
9       impingement of the species.

10               Now, I've dealt in California for the  
11       last about six months or so talking to regulators  
12       and folks about how the Gunderboom system would  
13       work in waters here. And we have, in most cases,  
14       have people convinced that we don't have an issue  
15       with the physical structure of the system, with  
16       mooring and anchoring and flotation.

17               The area that comes into question most  
18       frequently is biofouling, the concern about the  
19       system clogging or having silt or debris or kelps  
20       or tunicates, barnacles, things like that that are  
21       going to actually get on the surface of the  
22       fabric.

23               Our experiments and our testings have  
24       yielded that we have a very non-biofouling  
25       material. We have not had any issues whatsoever

1 with impinging our flow rates based on biofouling.  
2 Each one of the waters is different, and we're  
3 very cognizant of that.

4 And our approach in this application is  
5 to provide a study for the group that is going to  
6 ascertain biology information, the hydrology with  
7 particular water that we're dealing in, species  
8 evaluation. And basically provide an engineering  
9 report that says this is how we feel we should  
10 move forward in a pilot application for this  
11 location. That is our intent.

12 When we get to the issues of biofouling  
13 and cleansing of the system, it's obvious that  
14 you're going to have materials that are going to  
15 impinge or come to the surface of your fabric.  
16 Silts and other things.

17 A point that comes up very frequently is  
18 what is your approach velocity; how quickly is the  
19 water coming through. And people get the concept  
20 that you're going to be pulling water through at  
21 such a rate that things will actually come and  
22 stick to the surface of the fabric. That's not  
23 true.

24 By having a central intake source, and  
25 then surrounding it with a much larger source, you



1 are exponentially slowing the approach velocities.  
2 So our approach velocities are currently about  
3 120th of what is the recommendations of .5 feet  
4 per second.

5 And so if concern comes up about giant  
6 sea kelp or other silts and materials just coming  
7 up and sticking to the outside because they're  
8 being pulled in, it is not that case. It  
9 basically very gently flows by the fabric system.  
10 And we don't have any concern about that.

11 And in this case with the flow rates  
12 being as low as they are, we feel that it is  
13 really not an issue.

14 But when we do have cleaning  
15 requirements, Gunderboom has developed our air  
16 burst technology. And again, basically as I said  
17 before, these panels will go surface to bottom in  
18 some cases, and some cases they're submerged. We  
19 have a very power air delivery system. It comes  
20 up, bubbles actually expand two times their size  
21 in a single atmosphere of 32 feet of water,  
22 causing a very violent, or aggressive shaking and  
23 movement of the fabric that actually would  
24 resuspend anything that could be impinged upon it,  
25 and basically gently removing it into the water

1 column around the system.

2 PRESIDING MEMBER PERNELL: Could you  
3 hold that up again?

4 MR. MINER: Certainly.

5 PRESIDING MEMBER PERNELL: So you're  
6 saying that there's an outer layer that goes from  
7 the bottom that goes to the surface that kind of  
8 keeps everything out. And then you got this  
9 section in between?

10 MR. MINER: Pretty much. You've got in  
11 this particular case we're talking about a system  
12 that wouldn't break the surface of the water; it  
13 would actually be underwater. It's a submerged  
14 system.

15 You've got an outside panel and an  
16 inside panel. And it's not suction, but it  
17 delivers air inside that basically blows air into  
18 it. And it comes up through the two panels; it  
19 moves the fabric; it actually comes through the  
20 pores or the openings and takes anything that  
21 might be stuck on the outside of the fabric and  
22 puts it back into the water column.

23 So it cleans the system allowing the  
24 flow rates that you require to go on unimpinged.

25 And the reason it's got two panels like

1       this is twofold. One is obviously to contain the  
2       air delivery system, but also it's a component  
3       replacement capability. These panels are  
4       typically seven feet in width; they go surface to  
5       bottom or whatever height you have them  
6       underwater. And then over, you know, seven,  
7       eight, nine, ten years you have any type of  
8       wearing, friction-caused or whatever, you can  
9       actually go down and zip out a panel and replace  
10      it with a new panel.

11               And we haven't had failure. Originally,  
12      when we did like the Pisces report was written, we  
13      were using particular types of threads that were  
14      susceptible to sunlight. We didn't realize it.  
15      And so we thus upgraded to very highly UV  
16      resistant thread material, SR-5 materials. And so  
17      we haven't had any weather-related or ocean-  
18      related failures yet.

19               But it is developed for system component  
20      replacement so that we can meet a 40-year life  
21      cycle of a power plant.

22               MR. ABELSON: Before we go on could I  
23      pose a little concern here, because I am a little  
24      concerned on the process issue, what we're about  
25      at this point.

1           Number one, we had no indication this  
2           was coming. Number two, there is an enormous  
3           record in Morro Bay in front of this Commission  
4           about Gunderboom technology.

5           And I'm not prepared today to get into  
6           detailed technical questions for Mr. Miner. But  
7           there are very very serious concerns about this  
8           technology. So I'm not sure what it is that we're  
9           doing, but it doesn't look to me like it's  
10          evidence in the record. It's comment from a  
11          company that's interested in doing some business  
12          with this.

13          HEARING OFFICER SHEAN: Well, it's  
14          fairly clear to the Committee what we're doing.  
15          We have three proposed conditions, one of which is  
16          that they will conduct a feasibility study of the  
17          use of a marine life exclusionary system.

18          It was apparent when we saw the  
19          testimony that we had there was a hole in the  
20          record; there was not a complete explanation of  
21          what the potential of this was.

22          The Committee feels that hole needs to  
23          be filled. If you think, after Mr. Miner is  
24          through saying whatever he has to say, that you  
25          would like the Gunderboom people recalled so that

1       you can ask questions of them, then you get to  
2       make a motion to that effect.

3               MR. ABELSON: Yeah, my -- if I can just  
4       go on that, my problem with that is not whether or  
5       not we need to recall the Gunderboom people to ask  
6       questions, my problem is this issue of whether or  
7       not they're going to do a feasibility study is a  
8       proposal to do a feasibility study.

9               The question of whether or not this is  
10       feasible is something we're not litigating in this  
11       case. And there are very very serious questions  
12       as to whether it is.

13              MR. MCKINSEY: I'd like to say something  
14       at this point. First, I agree completely that it  
15       isn't before the Committee as to whether or not  
16       this is feasible. And the only way in which this  
17       is before the Committee is as a proposed  
18       enhancement that we do a feasibility study for  
19       whether or not it's feasible.

20              And second of all, it wasn't intended  
21       that this become the type of evidence that might  
22       prove that somehow this was feasible and that this  
23       would therefore eliminate the concerns over  
24       entrainment by virtue of this.

25              We also had no intention of bringing in

1 a witness -- I mean I don't want to belabor this,  
2 but this isn't a whole lot different, for  
3 instance, than suddenly finding out that there's a  
4 letter from the EPA and being told about it at the  
5 last second.

6 We didn't intend to bring in a witness  
7 that would create evidence that would suggest that  
8 entrainment was -- we heard from the Committee  
9 that they were interested in hearing more on the  
10 record about the Gunderboom system. Well, he was  
11 available and he has chosen to be here.

12 We haven't actually brought him as a  
13 witness because really there isn't, other than the  
14 value or the role of the feasibility study, which  
15 is something the Committee expressed interest in,  
16 it isn't before the Committee as to whether or not  
17 this is feasible and would eliminate entrainment  
18 impacts, and I agree there.

19 HEARING OFFICER SHEAN: Go ahead, Mr.  
20 Miner.

21 MR. MINER: All right. Not to address  
22 specifically, but I will tell you that as a  
23 executive with the corporation it's part of my  
24 duty to state to anybody that's looking at  
25 Gunderboom technology that Gunderboom will not

1 work in all applications. We fully realize that.

2 It is as a lead our job to determine if  
3 we have any feasibility; and then to take that  
4 forward to a further level of feasibility; then to  
5 a proposal that we document, engineering document,  
6 our feasibility.

7 We've gotten through those three stages  
8 with this particular application. I can tell you  
9 that looking at the flow rates and the situation,  
10 the biology, the water that the confidence is  
11 quite high within my engineering group of our  
12 abilities to have high level of success in this  
13 particular application.

14 The point that I want to bring forward  
15 is that we are best technology available in  
16 several permitted intakes where the Gunderboom  
17 system is successful in preventing entrainment and  
18 impingement of endangered and threatened fish  
19 species. We do that with very sophisticated  
20 engineering, very sophisticated SKATA systems  
21 which basically monitor the performance of the  
22 system in those particular waters.

23 We have to survive for 40 years. We  
24 have to build our systems for 50- and 100-year  
25 storm events. And that's the background of the

1 corporation and those are the products that we're  
2 currently delivering.

3 This basic diagram goes into a little  
4 bit about the typical air burst systems  
5 architecture. I would tell you that if you have  
6 any type of biological buildup or loading, or the  
7 70-foot oak tree that flows down a river in the  
8 Hudson and starts to become entangled in your  
9 system, a couple of things are going to happen.

10 The head differential in your water  
11 columns is going to change. You've got water  
12 coming into an intake, so the water on the outside  
13 is going to be higher than it is on the inside.  
14 We monitor the head differentials electronically.

15 If there's a variance in those at all  
16 the air force systems performance is noted by the  
17 computer control. It basically says you have a  
18 problem. And it will increase the air cleaning  
19 cycles.

20 We also put tension monitors on all of  
21 our mooring. And if the tension increases you  
22 know that you have something that's taking you out  
23 of tolerance. That would trigger.

24 Now these systems -- my background, I  
25 was actually, I lived in this area, I worked for



1 IBM. I was the ARCO account exec. I moved to  
2 Alaska. We installed light critical safety  
3 communication systems. So our systems are all  
4 completely redundant. They have very  
5 sophisticated monitoring, you know, the health and  
6 welfare of the system, onboard. And in the case  
7 where we did communications equipment, we had to  
8 have people that were there that could replace,  
9 component replacement. Those are the sciences or  
10 methodologies that we brought to this technology.

11 The way that Gunderboom approaches these  
12 projects is we first do a feasibility study, and  
13 that's what we propose for this application. We  
14 then take it through engineering and final design.  
15 And in engineering and final design we would move  
16 to actually do a pilot at this location where we'd  
17 come in and say, okay, here's what we perceive to  
18 be feasibility; and then we would move to some  
19 type of pilot program that would actually prove  
20 that feasibility for this.

21 And I won't go too much farther because  
22 I've taken more time than I believe I've been  
23 allocated to, but I guess maybe at this point I  
24 would open it up for any questions that folks  
25 might have, if that's appropriate.

1           HEARING OFFICER SHEAN: It is. Have you  
2           ever done an open ocean system like what would be  
3           here in the El Segundo project?

4           MR. MINER: Yes, we've had our fabric  
5           systems in open ocean waters from all over the  
6           country. The particular MLES full systems  
7           deployment that we're describing here in ocean  
8           waters has not been undertaken as of yet.

9           However, we have taken the same fabrics,  
10          anchoring systems, floatation systems, containment  
11          systems and had them in, you know, very  
12          significant open ocean environment in Alaska. And  
13          those were in the areas of debris control,  
14          reservoir type protections.

15          So, same fabrics, same flotation, same  
16          anchoring systems. The differential there is we  
17          simply did not deploy, we had no necessity to  
18          deploy the air burst cleaning systems. It wasn't  
19          an issue.

20          So I can answer the question by saying  
21          yes, we have significant open ocean experience.  
22          We have simply not done that with the air burst  
23          systems on.

24          But the installations on the east coast  
25          are all tidally influenced, heavy currents, have

1 very very significant water, high stresses.

2 PRESIDING MEMBER PERNELL: Do you have  
3 any systems in California at all?

4 MR. MINER: We worked with the Contra  
5 Costa Power Plant. We did some test deployments  
6 of fabrics there, in and around their plant,  
7 basically by just putting them in the water for  
8 testing on biofouling.

9 To the best of my knowledge we do not  
10 have an operational system in California  
11 currently, no.

12 PRESIDING MEMBER PERNELL: And the tests  
13 that you were doing in Contra Costa, did that --  
14 are you still testing there, or --

15 MR. MINER: Actually, no. We basically  
16 placed fabric in the water because the question of  
17 biofouling came up all the time. And so what we  
18 did is we put some of our fabrics in and around  
19 the discharge up in the Contra Costa Plant in  
20 Antioch. I think we left it in the water for  
21 three and a half years there.

22 I've taken several people to the site to  
23 actually witness it. We pulled the fabric out,  
24 and on the upper surfaces of it where it had  
25 direct sunlight there was evidence of some

1 biological growth. But in the lower portions  
2 there was virtually nothing on the fabric.

3 And this slide, which I had one of the  
4 biologists put together, talks of basically  
5 there's no significant mussels, tunicates,  
6 barnacles, macro-algae or sponges that show up on  
7 our fabrics in the testing we've done to date. We  
8 will see sporadic seasonal filamentous diatoms and  
9 hydroids which are, you know, seaweed types of  
10 things that will come and go seasonally. But  
11 nothing that's been an issue relative to our flow  
12 rates.

13 And then for any of the biologists that  
14 may be in the crowd, this is actually a piece of  
15 fabric that was deployed in the Hudson River for a  
16 little bit over a year. That's a silver dollar on  
17 the right, and that's a picture of the fabric  
18 after being in the water for a year. There's  
19 nothing on it. It's virtually clean. And that  
20 was flowing very significant volumes of water.

21 Here's another one. This was actually  
22 ocean water. This would be an example of an ocean  
23 deployment, but there was a harbor closure there  
24 so you can't call it open ocean. But it was in  
25 Mamaroneck on the Long Island coast. And that was

1 two years in the water, and there's virtually no  
2 growth on there whatsoever.

3 And here's an example of perforations on  
4 the Gunderboom system after it's been deployed.  
5 There's no clogging, no growth inside of those.  
6 And just, you know, so the folks that know the  
7 water, you'll see, you know, barnacles. Folks  
8 know that anybody that has a boat, you'll get  
9 barnacles. It'll grow on virtually anything. And  
10 we'll see it on some of the SR5 material; it'll  
11 show up on our connections and whatnot. But we'll  
12 see none of it on the fabric.

13 And even if there were, we provide this  
14 air cleaning system which basically has worked  
15 significantly in all of our installations.

16 So, again, our point is to -- we believe  
17 that we have a reason to do an analysis at this  
18 location. Our confidence is high enough that we  
19 think the feasibility is the right thing to do.

20 I'm going to just blow through this and  
21 call that good. Is there any other questions?

22 PRESIDING MEMBER PERNELL: I just have  
23 one other. Have you considered or done some  
24 analysis on a reverse flow, like I understand  
25 these systems periodically have a blowout to clean

1 out the pipes. What happens to your system then?

2 MR. MINER: It would actually be  
3 advantageous to the system. There would be two  
4 considerations there. One would be it's a thermal  
5 discharge, it would have heat. There would be no  
6 issue whatsoever with the heat. We've actually  
7 tested this in waters, you know, up to the boiling  
8 point. So, it's a non-issue.

9 The fact that they're actually  
10 discharging inside the system and would push water  
11 back through it; it would almost be like a back-  
12 flush. But it's not necessary for us for cleaning  
13 because you've got an on-board cleaning system.  
14 But it would cause no problem whatsoever.

15 I think the cycle is every 45 days, so  
16 it would be a non-event, non-impact.

17 If there's any other questions I'd be  
18 glad to --

19 MR. ABELSON: Thank you, Commissioner.  
20 I do have some questions. First of all, Mr.  
21 Miner, are you aware of, or have you participated  
22 in any way in the Morro Bay proceeding?

23 MR. MINER: I have not. Actually Hal  
24 Dreyer, who I work for, I tried to see if he could  
25 join us here; he just was unable to do so. And

1       Andy Custer, our biologist, got snowed in on the  
2       east coast, so I personally have not been involved  
3       in the Morro Bay --

4               MR. ABELSON:   Well, would --

5               MR. MINER:   -- but Andy and Hal have --

6               MR. ABELSON:   Yeah, would it surprise  
7       you to learn that in that case the capital cost  
8       estimate for your system is somewhere between \$5-  
9       and \$15 million?

10              MR. MINER:   No.

11              MR. ABELSON:   That would not surprise  
12      you?

13              MR. MINER:   Between \$5- and \$15 million  
14      at --

15              MR. ABELSON:   Yeah.

16              MR. MINER:   -- Morro Bay?   No.

17              MR. ABELSON:   All right.   The other  
18      question I'd like to ask is -- well, actually I  
19      think I'd rather do this instead, with the  
20      Committee's approval.

21              I believe Dr. Foster has participated in  
22      that proceeding and has had a considerable amount  
23      of opportunity to examine and explore the issue of  
24      Gunderboom in that proceeding.

25              And with the Committee's permission I'd

1       like to allow him to ask a few questions if he has  
2       them.

3               HEARING OFFICER SHEAN: That's fine.

4               MR. ABELSON: Dr. Foster.

5               DR. FOSTER: I think I'd like to make  
6       more of a comment, a few comments.

7               To start off with, if this thing worked  
8       it would be wonderful. Okay, it would solve so  
9       many problems that we're obviously concerned with,  
10      as you heard yesterday.

11              And it was proposed as a possible  
12      solution and as a condition of certification in  
13      the Morro Bay case. And so CEC Staff looked into  
14      it very carefully. We got some independent  
15      evaluations from independent scientists who worked  
16      with your systems on the east coast in situations  
17      that are somewhat similar, but not exactly like  
18      Morro Bay.

19              In addition, the Central Coast Regional  
20      Water Quality Control Board was very interested in  
21      this. And they commissioned an independent study  
22      through TetraTech Corporation, which is an  
23      engineering biology firm, to evaluate the  
24      technology.

25              And the conclusion of all of that was



1       that this is still very experimental. And as  
2       such, because it's a really unknown whether it  
3       would work, it's not something that's reasonable  
4       for a power company to propose as a condition of  
5       certification. It needs to be first demonstrated  
6       in some real situation that it will actually work.

7               MR. MINER: If I could comment?

8               PRESIDING MEMBER PERNELL: What's your  
9       analogy of a real situation if it's not a power  
10      plant? I mean, what -- you want it to be  
11      demonstrated, but how would we demonstrate it to  
12      see whether it was effective?

13              DR. FOSTER: I guess that wasn't my  
14      point. The point was that if the power plant  
15      wanted to demonstrate it as an independent effort  
16      on their own, to test it, to improve their ability  
17      to operate power plants, that was fine.

18              But it's such experimental technology,  
19      it's not something the Energy Commission should be  
20      a part of, unless they decided to have a research  
21      arm look at it separately.

22              MR. MINER: Dr. Foster, if I could  
23      comment. I have read those reports and I agree  
24      with much of what you're saying. When you talk  
25      about it as an experimental technology I remind

1 the group that this is a BTA, best technology  
2 available, or BAT, depending on which side of the  
3 country you're coming from, permitted currently in  
4 five applications on the east coast.

5 We're in the midst now of a full systems  
6 deployment at the Lovett Station. And so that  
7 which is classified as best technology and  
8 permitted on the east coast, to be considered  
9 experimental on the west coast, there's a  
10 difference there in how you're looking at it.

11 DR. FOSTER: If I could respond to that  
12 before you go on --

13 HEARING OFFICER SHEAN: Why don't we  
14 make sure he's finished his comment, please.

15 MR. MINER: Okay, but the point that you  
16 made that I completely agree with is that we are  
17 talking about feasibility here. Gunderboom cannot  
18 fail. My job, as first line of defense for the  
19 corporation, is to make sure that as we look at an  
20 application with a high level of probability, we  
21 went through that with these folks, and we are  
22 only at the point of proposing feasibility,  
23 engineering feasibility.

24 So, you and I are in complete agreement  
25 on that. And then the next statement is that

1       you're right, if we prove that this is effective  
2       in California waters, it is very good for us, it's  
3       very good for the fish, and it's very good for the  
4       power industry.

5               So our next position would be simply  
6       that we wish to demonstrate effectiveness of this  
7       in your waters. And that's what this is all  
8       about. I'm not going to sit here under any  
9       circumstances and guarantee that this system will  
10      work to the application that we need it to,  
11      however my confidence is high and I'm basically  
12      proposing that we have the opportunity to do so.

13             DR. FOSTER: Now I'll just address the  
14      BTA issue, and that is that there are some things  
15      about power plants that are universally applicable  
16      in terms of intakes and processing of hot water,  
17      and so forth.

18             The environment sitting in front of the  
19      power plant where these booms are put in place are  
20      very different from place to place. So it's  
21      perfectly reasonable to think that what might be  
22      considered BTA at a particular plant on the east  
23      coast would not be considered BTA here.

24             And my guess is I don't know what the  
25      EPA is thinking about this, but my guess is that

1       that would ultimately be their thought, as well.

2             It's a different set of issues relative to  
3       the EPA than we're normally used to dealing with.

4             MR. MINER:  -- biologies, water  
5       temperatures, (inaudible) hydrology, it's all --

6             DR. FOSTER:  -- (inaudible).

7             HEARING OFFICER SHEAN:  Any more, Mr.  
8       Abelson?

9             MR. ABELSON:  Yeah, I do have just a  
10       couple more questions and comments.  Again, I  
11       guess it has to do with the fact that we didn't  
12       realize there was going to be a presentation  
13       today.  There was a fairly lengthy discussion of  
14       the Gunderboom issue at the workshop on I believe  
15       it was December the 18th, which is not a -- a  
16       nontranscribed staff workshop.

17             And Mr. Paznokas has left with his  
18       broken ankle, but Fish and Game had very serious  
19       concerns about that application in this  
20       environment.

21             The National Marine Fisheries Service  
22       was present.  Of course, he's been snowed in  
23       today, from air travel.  They also had serious  
24       concerns about this application in this setting.

25             The Coast Guard, the United States Coast

1 Guard had serious concerns that they raised.

2 Obviously those people would have to  
3 speak for themselves, but I think it's fair to at  
4 least state on the record so the Commissioners are  
5 aware, that when the issue was brought up in the  
6 public forum that there were serious concerns  
7 raised by all of these agencies, as well as the  
8 Coastal Commission. And, of course, Mr. Luster is  
9 here to speak for them.

10 MR. MCKINSEY: I'd like to reiterate  
11 that we're not disagreeing with any of the fact  
12 that-- in fact, I think even Mr. Miner is saying,  
13 it's not that he's advocating that it is do-able  
14 or it's feasible, and this isn't in the same  
15 setting that was in Morro Bay.

16 What we're proposing is an enhancement  
17 condition which we would be obligated to perform a  
18 feasibility study. And I think his information  
19 today is only intended to go towards the value of  
20 doing that feasibility study.

21 The idea that somehow there would be  
22 something wrong with the Energy Commission having  
23 a condition of certification that says see if this  
24 works, that doesn't make any sense. If you just  
25 look at how we've treated Xonon and ScoNOx.

1 Whenever the Energy Commission's had an  
2 opportunity to try to show new technology might  
3 work, they've jumped at it. And I don't see why  
4 they wouldn't want to do that here.

5 And here we're not even talking about  
6 trying to install it at this point. This would  
7 obligate the applicant, or whoever, and if the  
8 project owner, to do that feasibility study. And  
9 that is a clear enhancement. And this  
10 information, I think, is useful towards  
11 understanding the system. And I also think it's  
12 useful for understanding and for the audience  
13 that's here today, as well.

14 MR. MINER: And I, just for  
15 clarification, I met with Bill after that hearing,  
16 and also Bob Hoffman and the gentleman that you  
17 mentioned earlier, these biologists. As we talked  
18 through the issues of the system and its  
19 operation, I believe that there was a comfort  
20 level delivered relative to wave action, surge  
21 action, mooring, anchoring and those types of  
22 things.

23 And where all of those guys went to was  
24 bio-fouling as their concerns. Which would be our  
25 primary focus relative to a pilot test at this

1 facility.

2 As I indicated, our tests to date in  
3 real world applications have yielded a non-issue  
4 relative to flow through in the fabrics in regards  
5 to bio-fouling, and that would be the primary --  
6 of a test.

7 HEARING OFFICER SHEAN: Okay. We'll do  
8 a little bit more and then see if Mr. Fleischli  
9 has anything, and then we'll wrap this up.

10 DR. FOSTER: I just have a question for  
11 the applicant and that is, why would you need the  
12 Energy Commission to require you to do it? Why  
13 don't you just do it?

14 MR. MCKINSEY: The easy answer to that  
15 is if the Energy Commission requires us to do it,  
16 we have to do it. And so, in the course of this  
17 proceeding it became something we could offer as  
18 an enhancement obligating us to actually have to  
19 do the feasibility study.

20 It would also, by virtue of doing it in  
21 a public setting, would insure that it's actually  
22 public information. In other words it's not just  
23 a private contract, but it actually produces  
24 information about what was conducted, what were  
25 the results and that makes that information

1       available not just to us, but to other  
2       individuals.

3               And so we offered it as an enhancement,  
4       not as something that we wouldn't otherwise maybe  
5       want to do anyway. But by virtue of incorporating  
6       it into the project, I think it furthers the  
7       benefit to California, as a whole.

8               HEARING OFFICER SHEAN: Did you have a  
9       question, Mr. Fleischli?

10              MR. FLEISCHLI: Yeah, I only have one  
11       question. Mr. Miner, I don't know if you just  
12       heard the applicant talking about offering this as  
13       an enhancement, this feasibility study. It seems  
14       that you're not comfortable at this point, and I  
15       appreciate the fact that you're not, saying that  
16       this will work. You want to do a feasibility  
17       study to understand whether it will work.

18              If that doesn't work and it doesn't go  
19       forward, is there any enhancement here, other than  
20       perhaps the information that it doesn't work in  
21       this context?

22              MR. MINER: I don't know that I  
23       understand the nature of your question.

24              MR. FLEISCHLI: If this device -- if we  
25       did a feasibility study and we concluded that it



1       wasn't feasible in this context, is there any  
2       enhancement to the marine environment by not  
3       putting in this device?

4               MR. MINER:  Is there enhancement to the  
5       marine environment by not putting in the device?

6               MR. FLEISCHLI:  Clearly, if you put in  
7       the device and it's feasible to do so, your  
8       company's position would be, based on what you've  
9       already said, that would enhance the marine  
10      environment because it would reduce, if not  
11      greatly reduce, the impingement and entrainment.

12              Is there any enhancement if you do a  
13      feasibility study that concludes no, it's not  
14      feasible, and therefore the device is not deployed  
15      in this environment?

16              MR. MINER:  Is there enhancement to the  
17      marine environment?

18              MR. FLEISCHLI:  Right.

19              MR. MINER:  Not that I can think of.  
20      It's an interesting question.

21              MR. FLEISCHLI:  I'm not trying to be  
22      difficult.  To me the answer is quite obvious,  
23      too, but --

24              HEARING OFFICER SHEAN:  Sure.  And it's  
25      essentially argument, rather than a factual

1 question. And even I can figure that out.

2 All right, thank you, Mr. Miner.

3 MR. MINER: Thank you very much.

4 HEARING OFFICER SHEAN: We appreciate --  
5 I'm sorry, Mr. Luster's in the back here.

6 (Off-the-record comments.)

7 MR. LUSTER: Just a quick comment  
8 regarding the Coastal Commission's involvement.

9 As stated in its letter, the Commission  
10 reserved its ability to review further changes to  
11 the proposed project. And just to note for the  
12 record, the Commission has not yet weighed in on  
13 the proposed flow caps from either the applicant  
14 or the staff. Those were relatively late in the  
15 process, and largely developed after the November  
16 6, 2002 letter from the Commission.

17 The Commission has also not weighed in  
18 on marine exclusion devices such as the Gunderboom  
19 systems. And because the systems raise a number  
20 of issues related to the Coastal Act, the  
21 Commission may be interested in providing the  
22 Energy Commission further findings and specific  
23 provisions.

24 HEARING OFFICER SHEAN: Can you maybe  
25 illuminate what you're talking about in terms of

1       there may be effects on the Coastal Act from MLES?

2               MR. LUSTER: Well, along with the  
3 biological considerations under Coastal Act review  
4 we would probably look at the anchoring systems,  
5 the type of effects it would have on the sea  
6 floor; navigation concerns; concerns with public  
7 use of the area; concerns about what would occur  
8 if the Gunderboom system were to break loose, any  
9 hazards associated with it. Those sorts of  
10 things.

11              So the Commission hasn't weighed in on  
12 any of that, or provided any of that analysis at  
13 this point.

14              HEARING OFFICER SHEAN: Okay, and that  
15 would be in this proceeding. Did you in Morro  
16 Bay?

17              MR. LUSTER: I don't recall how the  
18 Commission was involved in the Morro Bay issue.

19              HEARING OFFICER SHEAN: Okay, thank you,  
20 Mr. Luster.

21              MR. MINER: Should I provide comment on  
22 that?

23              HEARING OFFICER SHEAN: If you'd like,  
24 sure.

25              MR. MINER: Basically what I would say

1 in response is every single one of those points is  
2 extremely valid. The engineering that is done  
3 during a feasibility study specifically focuses on  
4 methodologies of anchoring and mooring and impact  
5 and usage, permitting, navigation issues. So  
6 those would all be yielded as a result of the  
7 feasibility.

8 Every situation is somewhat different,  
9 and we address each and every one of those.

10 And when you talked about a system  
11 breaking loose, I would simply just leave with  
12 this comment. When you're talking about 35 foot  
13 of tidal exchange in an area of land where you can  
14 have ice mass the size of, you know, part of this  
15 building, you learn a lot about anchoring and  
16 mooring systems.

17 And then when you study a particular  
18 location and you look at 100-year storm events,  
19 and you base your basic engineering  
20 prescribability on those issues, you tend to be  
21 able to move into any audience after your  
22 feasibility studies and you provide those stress  
23 load calculations and whatnot. You do not have an  
24 issue with a system that would break loose.

25 HEARING OFFICER SHEAN: Thank you,

1 Mr. Miner.

2 MR. MINER: Thank you very much.

3 HEARING OFFICER SHEAN: We appreciate  
4 it. Now, --

5 PRESIDING MEMBER PERNELL: Just one  
6 final comment. I'd like to thank Mr. Miner, as  
7 well. I've had some presentations on the  
8 Gunderboom, but at least this morning you did it  
9 justice.

10 Let me just say, though, that I'm not an  
11 advocate for any of this. This is information for  
12 me, as you all know. But I am an advocate for the  
13 environment. And if this does anything to help  
14 that, after the testing, and I'm assuming at least  
15 you said that you would come in and do some  
16 analysis up front to see whether it works or not.

17 And this reminds me of the fuel cell  
18 technology that we've been working on in  
19 automobiles for the last five years, that I know  
20 of, and even before then. And now this is just  
21 beginning to catch on, and everybody complains  
22 about the tailpipe emissions, but when there's  
23 some technology there, and it does no good to sit  
24 on the shelf.

25 So whether it's this project or some

1 other project, to find a test site, we need to be  
2 looking at this and test it to see whether it  
3 works in California.

4 That's not an opinion of the Committee.  
5 That's a personal opinion of Commissioner Pernell.

6 HEARING OFFICER SHEAN: Thank you again,  
7 Mr. Miner. We'll go --

8 MR. ABELSON: Mr. Shean, can we  
9 determine whether anybody else is on the phone?  
10 We were hoping Pete --

11 HEARING OFFICER SHEAN: We should do  
12 that.

13 MR. ABELSON: -- Raimondi was there, but  
14 we don't know.

15 DR. RAIMONDI: I'm here.

16 MR. ABELSON: Oh, you are?

17 DR. RAIMONDI: Yes.

18 MR. ABELSON: Can we get just a voice  
19 identification of whoever is on the phone at this  
20 moment?

21 CHAIRMAN KEESE: Bill Keese, but I'm  
22 going off for the Commission meeting in five  
23 minutes.

24 MR. ABELSON: Pete, are you the only  
25 other one? Is there anybody other than Pete

1 Raimondi?

2 (No response.)

3 MR. ABELSON: All right, thank you, Mr.  
4 Shean.

5 HEARING OFFICER SHEAN: Apparently not.  
6 All right, thank you.

7 All right, we'll get back on our  
8 evidentiary hearing course which is to the Santa  
9 Monica Baykeeper and --

10 MR. FLEISCHLI: Would you like to swear  
11 in Dr. Ambrose first, and then we can --

12 HEARING OFFICER SHEAN: Yes, please.  
13 We'll do that. Dr. Ambrose, please stand and  
14 we'll have the court reporter swear you in.  
15 Whereupon,

16 RICHARD AMBROSE  
17 was called as a witness herein, and after first  
18 having been duly sworn, was examined and testified  
19 as follows:

20 DIRECT EXAMINATION

21 BY MR. FLEISCHLI:

22 Q Dr. Ambrose, we're just going to at  
23 first just establish your qualifications and allow  
24 the other side to question those if they choose  
25 to. And then we'll get into the real questions --

1           A     Okay.

2           Q     -- on the issues. Can you just describe  
3 your professional qualifications?

4           A     I'm a Professor in the Department of  
5 Environmental Health Sciences at UCLA. And I  
6 Chair the Environmental Science and Engineering  
7 program at UCLA.

8                     I have a bachelors in biological  
9 sciences from UC Irvine in 1975; a PhD in marine  
10 ecology from UCLA in 1982. I've published more  
11 than 100 technical articles and reports, and about  
12 50 of those are peer-reviewed, published in peer-  
13 reviewed scientific journals.

14                    My research focuses on the impacts of  
15 human activities in the coastal ecosystem, and  
16 especially on how to mitigate those impacts. I've  
17 worked on power plant impacts in southern  
18 California since 1985, mostly on ways to mitigate  
19 impacts, but also on impingement issues.

20                    And I currently Chair the California  
21 Coastal Commission's Scientific Advisory Panel  
22 overseeing Southern California Edison's mitigation  
23 of impacts of San Onofre Nuclear Generating  
24 Station.

25                    I'm also on the Technical Advisory



1 Committee for the Santa Monica Bay Restoration  
2 Commission. And the Scientific Advisory Panel for  
3 the Southern California Wetlands Recovery Project.

4 Q And you've provided direct written  
5 testimony in this case?

6 A I have.

7 Q And were you present yesterday to  
8 observe the biological testimony of the applicant?

9 A Yes, I was. In the morning I was here  
10 for the biology.

11 MR. FLEISCHLI: I'll open it up to any  
12 challenge to his qualifications.

13 HEARING OFFICER SHEAN: Qualified?

14 MR. MCKINSEY: We have no objections.

15 HEARING OFFICER SHEAN: All right. He's  
16 qualified.

17 BY MR. FLEISCHLI:

18 Q Dr. Ambrose, the applicant says that  
19 there will be no significant impact from their  
20 intake operations at the El Segundo facility. Are  
21 their arguments convincing to you?

22 A They're not convincing to me. I think  
23 the main problem is that there is not enough  
24 relevant data to support their claims.

25 The applicant testified about how well

1 studied Santa Monica Bay is, and it's true that  
2 there have been many studies done in the Bay. But  
3 there are not enough relevant data about the  
4 species of concern in the relevant places for a  
5 long enough period of time.

6 Therefore the applicant has had to rely  
7 on data with only marginal relevance. And so the  
8 conclusions aren't very well founded.

9 Also the applicant's made a common sense  
10 argument that fish produce many larvae and few of  
11 these larvae survive to be adults. And so any  
12 additional mortality imposed by the power plant's  
13 not important. And that argument is also not  
14 convincing to me.

15 The first part of the argument is true.  
16 Few fish larvae survive to become adults. But it  
17 doesn't follow that any extra mortality imposed on  
18 top of the natural mortality won't cause  
19 significant impacts.

20 Q Do you have any opinion about the  
21 cumulative impacts from this operation?

22 A I think that in Santa Monica Bay  
23 especially there is concern about cumulative  
24 impacts. For many of the fish species there have  
25 been declines over the past few decades. And

1       there's likely to be a variety of causes of that  
2       including some natural oceanographic conditions.  
3       But also fishing and pollution and the entrainment  
4       and impingement of larvae and adult fish by the  
5       generating stations in Santa Monica Bay.

6           Q     Have you reviewed the document entitled,  
7       supporting impact analysis of entrainment and  
8       impingement, submitted by the applicant?

9           A     Yes, I have.

10          Q     And what are its limitations?

11          A     Again, the main limitation I think is  
12       that the data necessary for the proper analysis of  
13       impacts aren't available. And so the report uses  
14       inappropriate assumptions and analyses to try to  
15       draw its conclusions.

16                The fundamental information needed to  
17       assess the entrainment losses is information on  
18       what was entrained by that particular facility.  
19       And these data just aren't available for El  
20       Segundo.

21                And so in an attempt to get around this  
22       fundamental limitation the applicant's argued that  
23       data from other sites can be used. But the  
24       analyses supporting that argument are flawed.

25                And just as one example, the report

1 states that larval data from King Harbor can be  
2 used to predict the concentrations of fish larvae  
3 offshore of El Segundo. And they base this  
4 conclusion on the fact that the abundance of the  
5 fish larvae in King Harbor were correlated with  
6 abundances at Scattergood.

7 The correlations really are just because  
8 of general seasonal patterns; certain species of  
9 fish have larvae at some months, and not in other  
10 months. And so it shows that when there are high  
11 larval abundances in one place, there are high  
12 larval abundances in another place. And when  
13 they're low at one place, they're low at the other  
14 place.

15 It means that they move up and down at  
16 the same time. But it doesn't necessarily mean  
17 that they're the same concentrations. One can be  
18 much higher, one concentration can be much higher  
19 at one place than at the other place.

20 And so you can't use those correlations  
21 to try to predict concentrations. So that's just  
22 one example of the problems with the analyses.

23 Q And what about other studies at Ormond  
24 Beach, for example, are those adequate to  
25 determine the impacts?

1           A     I don't think they're adequate because  
2     although the applicant has argued that the fish  
3     larval community is similar in southern California  
4     by those areas, the fact that there's just general  
5     similarity doesn't mean that what's happening with  
6     the larvae, and somewhere Ormond Beach was just so  
7     far away, in a different setting than El Segundo,  
8     would mean it can't -- you cannot understand  
9     what's happening at El Segundo based on what's  
10    happening at such a different place.

11          Q     What's your current opinion about the  
12    state of the fisheries in Santa Monica Bay?

13          A     Well, there are data that show that many  
14    fish species have declined in abundance over the  
15    past several decades. And then there's also a lot  
16    of anecdotal observations indicating over the past  
17    50 or 100 years that there have been very  
18    significant declines in the fisheries.

19                So I think that the fisheries in Santa  
20    Monica Bay are depressed.

21          Q     And would this proposed intake enhance  
22    or restore the Bay in any way?

23          A     No, it wouldn't.

24          Q     You worked, as you mentioned, on the  
25    SONGS project. Can you describe --

1 MR. ABELSON: I'm sorry, SONGS?

2 MR. FLEISCHLI: SONGS, San Onofre.

3 DR. AMBROSE: Nuclear Generating  
4 Station.

5 MR. FLEISCHLI: Nuclear Generating  
6 Station.

7 MR. ABELSON: Thank you.

8 BY MR. FLEISCHLI:

9 Q Can you describe some of the mitigation  
10 that was conducted in that context?

11 A There are two main mitigation efforts;  
12 there are a few other ancillary ones, too. The  
13 first one was mitigation for impacts to kelp  
14 forest species, and that's not really an issue  
15 here.

16 The second one was mitigation for  
17 impacts due to entrainment and impingement. And  
18 that mitigation project was -- the requirement was  
19 to restore 150 acres of coastal wetland, coastal  
20 tidal wetland.

21 Q And are there any restoration  
22 opportunities available in Santa Monica Bay right  
23 now?

24 A There are actually quite a few, I think.  
25 The big ones are at Ballona and Malibu Lagoon.

1 And then another good possibility is at Topanga.

2 The State of California -- Topanga had been a  
3 fairly, for southern California standards, a  
4 fairly extensive estuary, but has basically been  
5 filled in and you can't even tell that there's an  
6 estuary there now.

7 But the State of California just  
8 acquired the land there and has plans for  
9 restoration. So, I think that there's good  
10 opportunity for restoration there.

11 Q Can you explain just a little bit about  
12 how restoring wetlands and other estuarine  
13 requirements can improve or enhance the aquatic  
14 ecosystem?

15 A Well, these wetlands are very productive  
16 ecosystems. And so they provide energy and other  
17 materials that can be transferred to other  
18 systems. And in addition they support a variety  
19 of different animals and plants, including some  
20 fish species.

21 These wetlands that I've just talked  
22 about probably will never be as important for  
23 fisheries as many of the Gulf Coast or east coast  
24 wetlands are. In those systems many fish species  
25 are completely dependent on wetlands. And the

1 fisheries will decline when the wetlands are  
2 destroyed or degraded.

3 There's still a number of fish species  
4 that use these wetlands, but in terms of  
5 mitigation here it would probably be primarily out  
6 of kind. That is the species that would be most  
7 likely to be impacted by the entrainment are not,  
8 for the most part, going to be the species that  
9 would benefit from the restoration.

10 But still there would be a general  
11 coastal ecosystem benefit.

12 Q How much do you know was spent at San  
13 Onofre on the specific wetland restoration issues?

14 A The restoration hasn't been done yet.  
15 And so I don't have a real complete dollar figure.  
16 But it's on the order of, I would say on the order  
17 of \$50- to \$80 million total for planning, for the  
18 restoration and for monitoring.

19 Q In your opinion what's the best way to  
20 mitigate or eliminate the biological impacts from  
21 the cooling water intake at El Segundo?

22 A Well, the best way to mitigate actually  
23 would be to eliminate those, and that would be by  
24 eliminating the once-through cooling.

25 Q So a non-extractive type of use?



1           A     Right.

2           Q     From a scientific perspective, if the  
3     applicant were to collect data at this point, say  
4     along the lines of a 316B-type study, and EPA were  
5     then to come out with rules down the road on what  
6     those 316B studies would need to look like from a  
7     regulatory standpoint, would any of that data the  
8     applicant collected be useful to the scientific  
9     community, and useful to understand the impacts  
10    from this facility?

11          A     Yes, I think those data would be very  
12    useful.

13               MR. FLEISCHLI:  I have no other  
14    questions at this point.

15               HEARING OFFICER SHEAN:  Thank you.

16               PRESIDING MEMBER PERNELL:  Just one, a  
17    followup on the nuclear power plant mitigation.  
18    How long ago was that?

19               DR. AMBROSE:  There were two new units,  
20    units 2 and 3, came online in '83 and '84.  There  
21    was a study of those impacts that concluded in  
22    '86.  This was all done as part of their coastal  
23    development permit, Southern California Edison's  
24    coastal development permit, so there was a report  
25    to the Coastal Commission, I think it was in '89.

1 And the Coastal Commission permit was 1990.

2 PRESIDING MEMBER PERNELL: So we can say  
3 1990?

4 DR. AMBROSE: Yeah.

5 PRESIDING MEMBER PERNELL: I mean there  
6 was a lot of studies leading up to that --

7 DR. AMBROSE: Right.

8 PRESIDING MEMBER PERNELL: -- but the  
9 actual permit --

10 DR. AMBROSE: Yeah, the actual --

11 PRESIDING MEMBER PERNELL: -- was issued  
12 in --

13 DR. AMBROSE: -- requirement to do the  
14 mitigation came in 1990, right.

15 PRESIDING MEMBER PERNELL: Okay.

16 DR. AMBROSE: And there was some delays.  
17 And right now what the situation is, there is an  
18 environmental impact statement, impact report, but  
19 there has been a lawsuit from local homeowners who  
20 are concerned with possible erosion from the  
21 restoration project. And so things are on hold  
22 until that lawsuit is resolved.

23 PRESIDING MEMBER PERNELL: Okay, so  
24 there are circumstances in there that's slowing  
25 that down?

1 DR. AMBROSE: That's correct.

2 MR. GARCIA: Dr. Ambrose, you spoke that  
3 the SONGS restoration is estimated to be in the  
4 \$30- to \$50 -- or \$50- to \$80 million?

5 DR. AMBROSE: I think that's right.

6 MR. GARCIA: And can you tell us if part  
7 of that restoration involves retubing the  
8 condenser with titanium tubes?

9 DR. AMBROSE: No. For this particular  
10 mitigation requirement it doesn't have anything to  
11 do with in-plant changes. That's just the wetland  
12 restoration.

13 MR. GARCIA: Could you kind of sketch  
14 out briefly what the \$50- to \$80 million  
15 improvement project is proposed to --

16 DR. AMBROSE: Right. The requirement to  
17 Southern California Edison was to restore 150  
18 acres of tidal wetlands. And Edison chose San  
19 Dieguito Lagoon as their location to do that  
20 restoration.

21 And so part of their credit towards that  
22 150 acre comes just from keeping the mouth of the  
23 lagoon open so that there can be tidal flow. And  
24 the rest of the credit comes from taking land that  
25 used to be wetland but was filled in and was used

1 for agriculture or as an airport, things like  
2 that, and remove the fill to bring the elevations  
3 back down to where they can be tidal. And so  
4 restore the wetland that way.

5 And so I think it's about 120 acres will  
6 be created from fill removal.

7 MR. GARCIA: Would it be fair to say  
8 that a substantial portion of the moneys that are  
9 represented by that amount have to do with  
10 acquisition of the land?

11 DR. AMBROSE: There was some cost due to  
12 acquisition of the land. Some of the land is also  
13 -- that's being used for this is owned by the  
14 Joint Powers Authority down there. So some of  
15 it's public land and some of --

16 MR. GARCIA: I guess part of --

17 DR. AMBROSE: -- it was acquired.

18 MR. GARCIA: -- what I'm trying to get a  
19 sense of is what their proposal to spend the --

20 DR. AMBROSE: Yeah.

21 MR. GARCIA: -- \$50- to \$80 million --

22 DR. AMBROSE: It's mostly excavation.  
23 So in wetland restoration in southern California  
24 most of the time the problem has been we had  
25 wetlands that were filled in. And to bring them

1 back we have to remove that fill.

2 And the cost depends on how much fill  
3 you have to remove, and how easy it is to dispose  
4 of it.

5 So we don't really know exactly what  
6 that cost is going to be yet, because we're not  
7 exactly sure how the fill could be disposed of.  
8 But, if, for example, you could use a fill and  
9 dispose of it on beach, then the costs are much  
10 much lower. But if you have to truck it away to a  
11 landfill or ship it out to a dump site by barge,  
12 then the costs can be much higher.

13 So, in general, in southern California  
14 that's the major cost for wetland restoration, is  
15 removal of fill.

16 MR. GARCIA: Thank you.

17 HEARING OFFICER SHEAN: Dr. Ambrose, I  
18 have just a couple questions and they flow out of  
19 your written statement here. And if you have it  
20 in front of you I'd like to refer you please to  
21 page --

22 DR. AMBROSE: Okay.

23 HEARING OFFICER SHEAN: -- 2, the second  
24 paragraph about the fourth line down. Or  
25 actually, let's go back to the second line down.

1 The sentence: For example, although the velocity  
2 cap is an appropriate technology for reducing  
3 impingement, the particular design used at El  
4 Segundo has not been demonstrated to be optimal  
5 for that particular situation."

6 Do you know of something better for that  
7 particular situation? Or how is it that in this  
8 particular situation it's not optimal?

9 DR. AMBROSE: I think what I was getting  
10 at there is just that there are -- although there  
11 was a general design of having a velocity cap,  
12 there are specifics about the size of the cap and  
13 the spacing.

14 And I just -- I don't know of any  
15 studies that have shown that that's the best  
16 velocity cap there could be, that you can't reduce  
17 impingement by altering that design.

18 HEARING OFFICER SHEAN: Okay. The  
19 following page, on page 3, the third paragraph  
20 down: The entrainment approach of McCall, et al,  
21 is a reasonable approach even though it might not  
22 be the best approach available today."

23 Can you describe what that McCall  
24 approach is?

25 DR. AMBROSE: Yes. The McCall paper

1 tries to estimate what the impacts would be to the  
2 adult population by calculating adult equivalence,  
3 using larval abundances.

4 And so it compares the larvae that are  
5 out in the receiving water to the larvae that are  
6 taken in, basically.

7 And there are some other approaches I  
8 know, for example, in Morro Bay and some of the  
9 other power plant assessments right now, there  
10 have been other approaches that have been used.  
11 But McCall was used back in the '80s, and you  
12 know, it's a legitimate approach, I think.

13 HEARING OFFICER SHEAN: And if I can  
14 refer you to the paragraph a little bit farther  
15 down that says: Entrainment losses are influenced  
16 by general oceanographic conditions, e.g. el nino,  
17 and can vary from year to year. Need to consider  
18 the full range of possible impacts, not focus only  
19 on the years data were collected."

20 DR. AMBROSE: Right.

21 HEARING OFFICER SHEAN: If that's the  
22 case, and the applicant were under the staff's  
23 recommendation to conduct a 316B-like study, and  
24 that study, as the testimony we have so far  
25 suggests, it would be somewhere between a 12- and

1 15-month study effort, --

2 DR. AMBROSE: Um-hum.

3 HEARING OFFICER SHEAN: -- how then does  
4 one measure the value of that information and the  
5 conclusions you could draw therefrom, with your  
6 comment here that basically year to year you can  
7 get variations --

8 DR. AMBROSE: Right.

9 HEARING OFFICER SHEAN: -- in the  
10 oceanographic conditions?

11 DR. AMBROSE: Well, I think this is a  
12 classic example of how more data is better always,  
13 but then it costs more. And so you have to make  
14 some decisions about, you know, what's sort of the  
15 minimal amount.

16 And so I think the idea of having, say,  
17 a year or a year and a half's worth of data, you  
18 would have much better information about  
19 entrainment during those conditions.

20 To really understand over say the  
21 operating period of a power plant you need to  
22 think about what would happen under different  
23 regimes. And so for example, if your 316B study  
24 was done during el nino conditions, to assess it  
25 in the broad context you'd need to think, well,



1        what species, you know, were reduced during el  
2        nino that might be at higher abundances later.  
3        What species are at high abundance during el nino  
4        that might be reduced later.

5                So, you'd need to do some analysis of  
6        what would happen over a long period of time.  
7        That's where if you had a longer data set you'd  
8        have a better idea about what the impacts are.

9                Now whether that's -- I mean in terms of  
10       deciding whether it's worth doing a study for say  
11       five years instead of one year, I mean it's a  
12       different issue. But from a scientific point of  
13       view I think you would need to make some  
14       assumptions about what would happen in  
15       oceanographic conditions that were different from  
16       the time when your data were collected.

17               HEARING OFFICER SHEAN: Okay. And do  
18       those assumptions -- is perhaps a synonym for that  
19       extrapolations?

20               DR. AMBROSE: Yes.

21               HEARING OFFICER SHEAN: Okay. And since  
22       a 316B study is done in a regulatory regime, might  
23       essentially the requirements of the benefits of  
24       that be different from what you might have if you  
25       were attempting to do a more comprehensive

1 scientific study?

2 DR. AMBROSE: Probably, but I think even  
3 in the regulatory regime you'd like to understand  
4 what the impacts were going to be over the whole  
5 operating period of the power plant.

6 HEARING OFFICER SHEAN: Based upon your  
7 experience, is there a common period in your mind  
8 over which data that might result from a 316B  
9 study or -like study become stale?

10 DR. AMBROSE: Well, certainly --

11 HEARING OFFICER SHEAN: And unreliable  
12 or inappropriate as you've used in your testimony.

13 DR. AMBROSE: Yeah, certainly I would  
14 say when you start looking at data that are a  
15 decade old, especially given that we've had fairly  
16 broad scale oceanographic changes, and we also  
17 have data on the fish abundances that show that  
18 over the period of a decade to several decades ago  
19 there have been big changes. I think that you  
20 would start worrying about data that were that  
21 old.

22 HEARING OFFICER SHEAN: What would be  
23 your opinion with regard to the correlation of  
24 316B or any other data coming out of the  
25 correlation between Scattergood and El Segundo of

1 any data from Scattergood?

2 DR. AMBROSE: I'm sorry, I don't  
3 understand about the --

4 HEARING OFFICER SHEAN: If Ormond Beach  
5 is not a sufficient proxy in your testimony, is  
6 Scattergood a sufficient proxy?

7 DR. AMBROSE: Scattergood's probably  
8 better, but I think that the best data are the  
9 data that are collected from what comes in the  
10 intake pipe.

11 I mean there are -- and also I guess it  
12 depends on whether you're talking about  
13 entrainment and impingement.

14 But for sure for impingement I know that  
15 there are big differences between intakes that are  
16 just, you know, very close together in the same  
17 power plant. At SONGS, at units 2 and 3, the  
18 intakes were very close together. And when we  
19 look at impingement data there can be significant  
20 differences between those two units.

21 And so I think this is part of the  
22 problem with trying to use data from other places  
23 that the larval abundances and the adult  
24 abundances are very patchily distributed along the  
25 coast there. And to really know what the impacts

1 are you have to have much more specific data.

2 HEARING OFFICER SHEAN: Okay. Along the  
3 lines of that and perhaps carrying it logically a  
4 little farther, if there's not a sufficient  
5 correlation between Scattergood and El Segundo,  
6 and based upon what you've just stated, might we  
7 find there is a difference in data collected  
8 between the intake for units 1 and 2 at El Segundo  
9 and the intake for units 3 and 4 at El Segundo?

10 DR. AMBROSE: That's possible.

11 HEARING OFFICER SHEAN: And in a  
12 regulatory regime then how is the regulator to  
13 deal with that, and give that essentially meaning?

14 DR. AMBROSE: Well, I think that you  
15 have circles of confidence. And so when you're  
16 talking about places that are very close together  
17 you have more confidence that they'll be similar.  
18 And as you get farther and farther apart there's  
19 less and less confidence.

20 So, obviously there's limitations in  
21 terms of how much data you can collect that is  
22 specifically related to what you're trying to  
23 regulate. But I think you try to get the data  
24 that are as close as you can and that you have  
25 confidence in.

1           HEARING OFFICER SHEAN: Okay. I have  
2 one last question. On page 5 under paragraph  
3 number 2, the sentence reads: The equivalent  
4 adult model takes too broad a brush to provide  
5 accurate estimates of the true entrainment  
6 impacts." And I take it that's what McCall was  
7 all about.

8           "The inputs of the model, e.g. putative  
9 larval abundances are not demonstrated to be  
10 appropriate and important refinements such as  
11 differences in cross-shelf distributions are not  
12 included."

13           Can you describe what cross-shelf  
14 distributions are, please?

15           DR. AMBROSE: Yeah. Well, thank you for  
16 the opportunity to elaborate on that. I couldn't  
17 decide whether to get into that detail in my  
18 statements earlier.

19           Yes, the two complaints that I have  
20 right here are first of all, the inputs in terms  
21 of what the larval losses are. And in this case  
22 those inputs came from King Harbor. And I'm  
23 arguing that that's not appropriate.

24           The second point I was making is that in  
25 the marine review committee study of San Onofre

1 Nuclear Generating Station there also was an  
2 analysis based on McCall's model. But what the  
3 marine review committee did was they looked at how  
4 larvae differed in their distribution. Whether  
5 they were very close to shore or farther offshore,  
6 or very far offshore. And it turns out that for  
7 different species they have different  
8 distributions offshore.

9 And so that determines which species are  
10 most going to be entrained, and at what life  
11 stage. And it turns out also in this model it's  
12 very important to know what the life stage is,  
13 whether it's a very young larvae or an old larvae  
14 that's almost turning into an adult.

15 And so those refinements, I think, are  
16 very important to really getting a better estimate  
17 of what the equivalent adult losses are. And  
18 those refinements are not in this analysis.

19 HEARING OFFICER SHEAN: Okay, thank you.

20 MR. GARCIA: Yeah, I have some questions  
21 regarding the issue, general issue of entrainment.  
22 And I can't recall if it was you or one of the  
23 other witnesses that made a statement that for all  
24 intents and purposes the mortality of the larvae  
25 going through the system is 100 percent.

1                   And I'm wondering if you're in agreement  
2                   with that statement?

3                   DR. AMBROSE: It wasn't me who made that  
4                   statement. It was Pete Raimondi? Okay. And as  
5                   far as I can tell from the entrainment studies  
6                   that I have looked at, this is a common  
7                   assumption. It seems like it's a reasonable  
8                   assumption.

9                   MR. GARCIA: Okay. Do you know of any  
10                  studies that have tried to validate that  
11                  assumption?

12                 DR. AMBROSE: I actually don't know of  
13                 any studies. You'd have to ask somebody else.

14                 MR. GARCIA: Okay. And I guess the  
15                 other question that I have on this particular  
16                 topic is it would seem to me that it would be  
17                 important to try to determine what the cause of  
18                 the mortality is. Is it temperature effects, or  
19                 is it mechanical effects resulting from the larvae  
20                 going through the pump and the resulting  
21                 turbulence and -- can you comment on that?

22                 DR. AMBROSE: Well, it might be  
23                 interesting. I'm not sure how important it is,  
24                 because since you can't really separate those  
25                 things when they go through the cooling system, I

1       guess it doesn't really matter that much what it  
2       is that's actually killing them.

3               MR. GARCIA:  I would think that the  
4       cause of the mortality would be important for a  
5       designer trying to design a way -- the problem,  
6       for instance, if it was due to only temperature  
7       effects, you could wind up say doubling the volume  
8       of the water going through there and perhaps  
9       getting below the threshold of the mortality.

10              If it was due to turbulence, you might  
11       try some other technique.

12              DR. AMBROSE:  Okay, now I understand  
13       your question.  And I agree, yeah, from the design  
14       point of view.  From the assessment of impacts  
15       point of view it probably doesn't matter.  But to  
16       understand how you might be able to design cooling  
17       systems so that they would reduce mortality, sure.  
18       That makes sense.

19              MR. GARCIA:  All right.  Well, thank you  
20       very much.

21              HEARING OFFICER SHEAN:  Okay, anything  
22       from anybody else?

23              MR. MCKINSEY:  Did you want to -- I  
24       don't know how you want to --

25              HEARING OFFICER SHEAN:  No, I think what



1 we'll do is -- I think what we decided to do is  
2 hold all the cross from the two sides until the  
3 direct is all out.

4 All right. Thank you, Dr. Ambrose.

5 PRESIDING MEMBER PERNELL: Thank you,  
6 Dr. Ambrose.

7 HEARING OFFICER SHEAN: Is there any  
8 other direct presentation by any other party on  
9 the biological issue?

10 MR. MCKINSEY: We had planned rebuttal  
11 testimony, but we felt that it was appropriate to  
12 conduct the cross-examination first.

13 HEARING OFFICER SHEAN: Well, it seems  
14 like the rebuttal ought to come after you know  
15 what has been answered on cross as to whether or  
16 not you need to rebut it.

17 All right, --

18 MR. ABELSON: Mr. Shean, --

19 HEARING OFFICER SHEAN: Yes.

20 MR. ABELSON: -- in terms of direct  
21 testimony the National Marine Fisheries --

22 HEARING OFFICER SHEAN: I'm sorry, I'm  
23 going to stop you. Why don't you offer his  
24 written statement and is there objection to the  
25 admission of the written statement of Dr. Ambrose

1       into evidence?

2               MR. FLEISCHLI:  His written statement as  
3       well as the attachment, which included the map  
4       which was the study from San Onofre.

5               HEARING OFFICER SHEAN:  Okay.  Hearing  
6       no objection, it's admitted.

7               MR. ABELSON:  Yes, on direct,  
8       Commissioner Pernell, we have a two-page letter  
9       from the National Marine Fisheries Service; it's  
10      actually part of their official response testimony  
11      that was filed.  And as I indicated earlier the  
12      gentleman unfortunately due to weather conditions  
13      cannot be here.

14              They would like this read into the  
15      record, so with your permission, it is only two  
16      pages long, and that would complete the direct.

17              MR. MCKINSEY:  I think we might object  
18      to that from the sense that unless we have the  
19      ability to make some rebuttal, I guess pretend  
20      questions to this supposed witness who's making  
21      statements, because had he been here we would have  
22      had some questions similar to what we might have  
23      asked, what we asked Mr. Paznokas yesterday from  
24      the California Department of Fish and Game.

25              So I don't know how we can accommodate

1       that.  If it's in written, I don't have as many  
2       objections to it.  I don't think it has the same  
3       type of effect as if it's being read out loud, as  
4       if it's coming from a witness.

5               So, we would object, I think, to it  
6       being read out loud.

7               MR. ABELSON:  I guess my comment to the  
8       Committee would be this:  This is a sister agency  
9       which is fully entitled, under our rules, to have  
10      comments on the record at the hearing.  They have  
11      a written statement; they're not subject to cross-  
12      examination when they tender comments, which is  
13      what they do.

14              And we would like the opportunity,  
15      because of an unfortunate circumstance, Mr.  
16      Chesney undoubtedly would make himself available  
17      at any time the Committee wants, as soon as the  
18      planes fly, to let the Committee know, through the  
19      hearing process, what his piece is.  To let him  
20      say his piece.  So.

21              HEARING OFFICER SHEAN:  Well, I think  
22      we're going to determine that they've sent their  
23      piece in writing.  And that --

24              MR. ABELSON:  I guess they aren't going  
25      to get a hearing on it from their ears.

1           HEARING OFFICER SHEAN: Well, if they  
2 find that they need to expand upon what they've  
3 presented to us in writing, we can always, through  
4 the staff, request that the record be reopened for  
5 the purpose of introducing the information that  
6 they -- beyond what they have in comment. So, --

7           MR. ABELSON: Can I get a ruling from  
8 the Commissioner on that?

9           HEARING OFFICER SHEAN: That's going to  
10 be the ruling.

11          PRESIDING MEMBER PERNELL: Well, that  
12 will be the ruling. I have a Hearing Officer, and  
13 unless he's way out of bounds I'm not going to  
14 overrule him.

15          HEARING OFFICER SHEAN: All right.  
16 We're showing approximately --

17          MR. ABELSON: Thank you.

18          HEARING OFFICER SHEAN: -- 10:30. We'd  
19 like to take a true ten-minute break. That will  
20 give people a chance to get prepared. What we're  
21 going to do next is have the applicant's witnesses  
22 available for cross-examination by the staff side.

23                 And we'll see how long that takes, and  
24 whether or not we can move the other direction  
25 before lunch.

1 MR. REEDE: Dr. Raimondi, we're taking a  
2 ten-minute recess.

3 (Brief recess.)

4 HEARING OFFICER SHEAN: Back on the  
5 record for the cross-examination by the staff  
6 side.

7 MR. ABELSON: At this time staff  
8 reserves any cross-examination for further in the  
9 proceeding if necessary. Our anticipation is  
10 there will be no cross-examination at this time of  
11 the applicant. We think our case has been fairly  
12 presented.

13 HEARING OFFICER SHEAN: All right. Mr.  
14 Fleischli.

15 MR. FLEISCHLI: I'd like to do some  
16 limited cross on Dr. Mitchell and Mr. Hemig, if  
17 that's acceptable.

18 HEARING OFFICER SHEAN: That's fine.  
19 They're both present. Let me remind you gentlemen  
20 that you've been previously sworn.  
21 Whereupon,

22 CHARLES MITCHELL and TIM HEMIG  
23 were recalled as witnesses herein, and having been  
24 previously duly sworn, were examined and testified  
25 further as follows:

1           MR. FLEISCHLI: And perhaps, if for some  
2 reason, you are not the appropriate person to  
3 answer my questions, you can refer me to the  
4 appropriate person on the applicant's side.

5                   CROSS-EXAMINATION

6 BY MR. FLEISCHLI:

7           Q     I'd like to start with Mr. Hemig, since  
8 it's much shorter. Mr. Hemig, can you tell us  
9 whether or not the Water Board at this time has  
10 made a determination as to whether using or moving  
11 the discharge to the Hyperion would be subject to  
12 the 20 degree Fahrenheit differential rule from  
13 the thermal plant?

14           MR. HEMIG: No, the Water Board has not  
15 made a determination.

16           MR. FLEISCHLI: Thank you. And you are  
17 familiar with the West Basin NPDES permit to  
18 discharge out the Hyperion outfall?

19           MR. HEMIG: I've looked at it briefly.

20           MR. FLEISCHLI: To your knowledge does  
21 that permit have any numeric effluent limits in  
22 it?

23           MR. HEMIG: No, it does not.

24           MR. FLEISCHLI: Thank you. I have no  
25 further questions for Mr. Hemig.

1 BY MR. FLEISCHLI:

2 Q Dr. Mitchell, --

3 MR. MITCHELL: It's Mister, --

4 MR. FLEISCHLI: Oh, Mister, that's  
5 correct.

6 MR. MITCHELL: -- you made that clear  
7 yesterday.

8 MR. FLEISCHLI: I -- I --

9 (Laughter.)

10 MR. FLEISCHLI: How soon we forget.

11 MR. MITCHELL: Yes.

12 HEARING OFFICER SHEAN: His fee just  
13 went up.

14 MR. FLEISCHLI: I'm surrounded by so  
15 many others that --

16 MR. MITCHELL: It also means that I'm  
17 turning in my honorary membership in his  
18 organization that was given to me for my  
19 contributions to them, so.

20 MR. FLEISCHLI: Fair enough.

21 (Laughter.)

22 MR. FLEISCHLI: I appreciate that. We  
23 have -- never mind.

24 (Laughter.)

25 MR. FLEISCHLI: Mr. Mitchell, in your

1 opinion is there any ecological significance to  
2 Santa Monica Bay?

3 MR. MITCHELL: Well, yes, there is an  
4 ecological significance to Santa Monica Bay.

5 MR. FLEISCHLI: Can you briefly describe  
6 what that might be?

7 MR. MITCHELL: The same as it is for any  
8 body of water along the coastline. It has an  
9 ecological role.

10 MR. FLEISCHLI: Do you know, or are you  
11 aware that Santa Monica Bay is part of the  
12 National Estuaries Program?

13 MR. MITCHELL: I am.

14 MR. FLEISCHLI: Do you know what the  
15 purpose of the National Estuaries Program is?

16 MR. MITCHELL: Yes.

17 MR. FLEISCHLI: And can you describe  
18 what that is to your knowledge?

19 MR. MITCHELL: Well, primarily, in this  
20 case I think it's a funding vehicle for the  
21 restoration of areas that have been contaminated  
22 or somehow modified.

23 MR. FLEISCHLI: Are you aware of any  
24 restoration possibilities in Santa Monica Bay at  
25 this time?



1 MR. MITCHELL: Yes.

2 MR. FLEISCHLI: Could you describe what  
3 those might be?

4 MR. MITCHELL: Well, one might be the  
5 kelp bed restoration project that I was involved  
6 in in the early days of setting it out.

7 MR. FLEISCHLI: And that was off Palos  
8 Verdes, I think?

9 MR. MITCHELL: It was off Palos Verdes  
10 and off of the Malibu coastline, upper end of  
11 Santa Monica Bay.

12 MR. FLEISCHLI: Are you aware of any  
13 fishing bans in Santa Monica Bay?

14 MR. MITCHELL: Yes.

15 MR. FLEISCHLI: Can you describe what  
16 bans you're familiar with?

17 MR. MITCHELL: The ones I'm most  
18 familiar with are, for instance, since 1938 Santa  
19 Monica Bay has been set aside for sport fishing  
20 only, and noncommercial fishing outside of that.

21 So it's an area reserved for sport  
22 fishing only.

23 MR. FLEISCHLI: Do you know the  
24 rationale for that?

25 MR. MITCHELL: Well, originally the

1       rationale was that it was a productive sport  
2       fishing area close to major metropolitan area,  
3       which even in 1938 it was a metropolitan area.

4               MR. FLEISCHLI: But why would you  
5       exclude commercial fishing?

6               MR. MITCHELL: To reduce the -- or to  
7       maintain the stocks for the sport fisherman.

8               MR. FLEISCHLI: Okay, do you have any  
9       reason to disagree with that rationale?

10              MR. MITCHELL: I don't disagree with it,  
11       no.

12              MR. FLEISCHLI: Are you aware of any  
13       other fishing restrictions in Santa Monica Bay?

14              MR. MITCHELL: No.

15              MR. FLEISCHLI: No, you're not?

16              MR. MITCHELL: No. I mean there are  
17       restrictions, there are no restrictions on  
18       fishing, there are restrictions on what you can do  
19       with the fish.

20              MR. FLEISCHLI: Whether you can consume  
21       them or not?

22              MR. MITCHELL: Whether you can consume  
23       them or not. You can fish them all day long.

24              MR. FLEISCHLI: So catch limits, for  
25       example? Is that what you're --

1 MR. MITCHELL: No, I'm --

2 MR. FLEISCHLI: Or catch-and-release  
3 requirements?

4 MR. MITCHELL: No, no, no, no, no. I'm  
5 referring to human health restrictions on the  
6 consumption of fishes caught from within Santa  
7 Monica Bay.

8 MR. FLEISCHLI: Okay. What about  
9 restrictions on the actual take and the amount of  
10 fish you're allowed to take as a sport fisherman  
11 or any species of fish that might be limited for  
12 taking?

13 MR. MITCHELL: That's correct, the Fish  
14 and Game has a series of restrictions on bag  
15 limits, or catch limits, that sort of thing.

16 MR. FLEISCHLI: Do you know the  
17 rationale for that?

18 MR. MITCHELL: Yes.

19 MR. FLEISCHLI: Could you explain it?

20 MR. MITCHELL: The best of my ability.  
21 They are generally targeted, such kinds of  
22 restrictions, on attempting to maintain the  
23 stocks.

24 MR. FLEISCHLI: Do you have any reason  
25 to disagree with that?

1 MR. MITCHELL: I think that -- no, I  
2 don't.

3 MR. FLEISCHLI: Okay. In your  
4 professional opinion has science advanced in the  
5 last 20 years for identification of larvae?

6 MR. MITCHELL: For larvae in the  
7 southern California area, that's true.

8 MR. FLEISCHLI: It has advanced?

9 MR. MITCHELL: It has advanced.

10 MR. FLEISCHLI: What about in terms of  
11 the larvae and collection methodology? Has that  
12 improved over the last 20 years?

13 MR. MITCHELL: No.

14 MR. FLEISCHLI: It has not?

15 MR. MITCHELL: No.

16 MR. FLEISCHLI: Did you hear the  
17 testimony yesterday from the staff side with  
18 regard to improvements in collection methodology?

19 MR. MITCHELL: No.

20 MR. FLEISCHLI: You did not? Okay. The  
21 applicant has raised concerns about the thermal  
22 plan and the 20 degree temperature differential if  
23 the discharge were to go out the Hyperion outfall.  
24 You're familiar with that?

25 MR. MITCHELL: I'm sorry, would you

1 repeat the --

2 MR. FLEISCHLI: Yeah. The applicant has  
3 raised concerns about the requirements, their  
4 alleged requirements in the California thermal  
5 plan of restricting temperature change to 20  
6 degrees Fahrenheit for new sources. Are you  
7 familiar with that?

8 MR. MITCHELL: Yes.

9 MR. FLEISCHLI: Okay. Do you know the  
10 scientific basis for the 20 degree temperature  
11 differential restriction in the thermal plan?

12 MR. MITCHELL: No, I do not.

13 MR. FLEISCHLI: Do you agree that a  
14 restriction of 20 degrees Fahrenheit is necessary  
15 to protect the aquatic environment of Santa Monica  
16 Bay?

17 MR. MITCHELL: I think that it probably  
18 is.

19 MR. FLEISCHLI: It probably is.

20 MR. MITCHELL: Yes.

21 MR. FLEISCHLI: Okay. Yesterday you  
22 testified that the current temperature  
23 differential from the discharge from the existing  
24 outfall is 22 degrees Fahrenheit, is that correct?

25 MR. MITCHELL: No.

1 MR. FLEISCHLI: No? What is the --

2 MR. MITCHELL: That's not correct.

3 MR. FLEISCHLI: What is the temperature  
4 differential?

5 MR. MITCHELL: The temperature  
6 differential that I referred to, 22 degrees, was  
7 across the -- the difference between the intake  
8 temperature and the temperature at the other side  
9 of the condenser tube.

10 MR. FLEISCHLI: So it would not be at  
11 the point of outfall?

12 MR. MITCHELL: At the point of discharge  
13 it's something radically different.

14 MR. FLEISCHLI: And what is that number?

15 MR. MITCHELL: I can't tell you right  
16 off the top of my head. It depends on whether  
17 it's, you know, one foot from the point of  
18 discharge or ten feet from the point of discharge.

19 MR. FLEISCHLI: Say right at the point  
20 of discharge.

21 MR. MITCHELL: Well, it's going to be  
22 probably something less than 22 degrees since it's  
23 cooled all the way going out the pipe.

24 MR. FLEISCHLI: So for that, what is it,  
25 a half-mile pipe, it gets cooled in that pipe?

1 MR. MITCHELL: That's correct.

2 MR. FLEISCHLI: So the temperature  
3 differential could be less than 20 degrees  
4 Fahrenheit?

5 MR. MITCHELL: That's right.

6 MR. FLEISCHLI: You testified yesterday  
7 that over the last ten years 102,000 fish have  
8 been impinged according to data from the  
9 applicant, is that correct?

10 MR. MITCHELL: That's correct.

11 MR. FLEISCHLI: I believe you also  
12 testified, or it was in your written testimony,  
13 that perhaps a couple million larvae might be  
14 entrained?

15 MR. MITCHELL: That's correct.

16 MR. FLEISCHLI: Okay. If this were a  
17 zero sum equation wouldn't the applicant have to  
18 put back 102,000 fish and several billion larvae  
19 in order to make it a zero sum equation?

20 MR. MITCHELL: I'm sorry, I don't know  
21 what a zero sum equation is.

22 MR. FLEISCHLI: Fair enough. If the  
23 applicant were to have no impact on an individual  
24 organism, by individual organism basis, wouldn't  
25 the applicant have to replace the 102,000 fish

1       that have been lost, and the two billion larvae  
2       that have been lost?

3               MR. MITCHELL: I suppose that's true,  
4       but I think it's an over-simplification.  
5       Everything we do have an effect on the  
6       environment. We all drove here this morning in  
7       our cars and spewed toxicants, we suck bugs on our  
8       radiators, et cetera.

9               MR. FLEISCHLI: Right.

10              MR. MITCHELL: So there's acceptable  
11       losses and nonacceptable losses.

12              MR. FLEISCHLI: But if I wanted to  
13       mitigate the fact that I drove here today, I could  
14       perhaps buy CO2 emission credits in order to  
15       offset that, is that correct?

16              MR. MITCHELL: I suppose that's correct.  
17       I have no idea.

18              MR. FLEISCHLI: All right, thank you.

19              MR. MITCHELL: I'll take your word for  
20       it.

21              MR. FLEISCHLI: So in order to mitigate  
22       the individual impacts of impinging 102,000 fish  
23       you would need to replace 102,000 fish?

24              MR. MITCHELL: Okay, in your scenario  
25       that's true.



1 MR. FLEISCHLI: All right. Thank you.

2 I have no further questions.

3 HEARING OFFICER SHEAN: Anything from  
4 any other party? I have a question here.

5 Hypothetically, -- and this is for  
6 either of the two witnesses -- if the Commission  
7 were to adopt the applicant's position that no  
8 316B-like study should be performed prior to  
9 certification, and thereafter the applicant  
10 performed a 316B study for the Water Board's NPDES  
11 permit renewal, and if that 316B study found that  
12 there were significant entrainment impacts, -- now  
13 we get to the heart of the question -- what  
14 measures are potentially available to mitigate  
15 those impacts, or is it just tough luck for the  
16 fish?

17 MR. HEMIG: Absolutely not tough luck  
18 for the fish. And we're all waiting the final  
19 ruling coming out of EPA and 316B, but the draft  
20 rule does have mandatory standards which will  
21 require the reduction in entrainment and  
22 impingement.

23 You know, not knowing fully how those  
24 will come out, but believing that they'll come out  
25 in similar manner, that 316B study is done under

1 the jurisdiction of the Water Board and USEPA  
2 resulting in a level of entrainment would require  
3 reduction in entrainment.

4 And it's regardless of whether or not  
5 there's a significant impact or not. It's just a  
6 standard of reduction in percentage. So I  
7 personally believe there will be a reduction.

8 And then the second part of your  
9 question is how do we accomplish that?

10 HEARING OFFICER SHEAN: Um-hum.

11 MR. HEMIG: And --

12 MR. ABELSON: I'd like to object, by the  
13 way this is a legal testimony and it isn't  
14 correct, actually. And Mr. Hemig has not been  
15 sworn as an attorney, and we don't have the 316B  
16 draft regs in front of us, and they haven't been  
17 adopted. So I object and move to strike all of  
18 that last answer.

19 HEARING OFFICER SHEAN: Okay, and your  
20 objection is overruled.

21 MR. ABELSON: Basis?

22 HEARING OFFICER SHEAN: He's not  
23 testifying as a lawyer. His testimony upcoming  
24 now is to how potentially he could comply with  
25 this in an on-the-ground mitigation basis. And

1 we're just going to find out what he has to say.

2 MR. HEMIG: The draft rule has  
3 provisions for meeting the standard, one of which  
4 would be reducing the actual entrainment through  
5 technology like the aquatic filter barrier  
6 technology, or similar technology.

7 It also has a basis for habitat  
8 restoration or habitat offset, which is some of  
9 the things we've discussed in this proceeding.  
10 That is also an option to the cooling water  
11 operator.

12 And one of those two kinds of  
13 technologies or restoration programs, I believe,  
14 would probably be the result of how El Segundo  
15 would comply with the final rules.

16 HEARING OFFICER SHEAN: All right.  
17 Thank you. Do you have any redirect of your  
18 witnesses?

19 MR. MCKINSEY: No.

20 PRESIDING MEMBER PERNELL: I have a  
21 question, Mr. Shean.

22 Has the applicant done any studies as to  
23 the effect of their proposed project? Any studies  
24 at all?

25 MR. MITCHELL: I'm not sure I understand

1 the whole impact of your question. Would you  
2 restate it?

3 PRESIDING MEMBER PERNELL: There is a  
4 proposed project before us. Have you done any  
5 studies, other than looking at studies that were  
6 done with Scattergood and Ormond Beach and those  
7 types, other than looking at other studies, have  
8 you done any studies as to the effect of your  
9 project on the aquatic environment?

10 MR. MITCHELL: There were -- well, first  
11 of all, it's an existing intake and cooling water  
12 system, so we had not. It was our opinion that  
13 this is an existing facility, it's an operational  
14 facility, and that there were no significant  
15 impacts.

16 We addressed many of the areas of  
17 concern by going back and re-examining some of the  
18 literature that are available to kind of bring it  
19 up to date, if you will. There are lots of  
20 ongoing programs within Santa Monica Bay that help  
21 us look at the potential effects of the operation  
22 of the generating station.

23 We can look at the impingement  
24 monitoring that's ongoing; we can look at the  
25 ongoing NPDES studies that have been in continuous

1 effect. So there were a number of studies, there  
2 were a number of monitoring programs that have  
3 continued through the entire operational period of  
4 the generating station.

5 There were a few studies of very short  
6 duration that looked at plankton for just a three-  
7 month period in the site-specific area around the  
8 intake, and correlated them, or attempted to  
9 correlate them with similar data from Redondo  
10 Beach area.

11 PRESIDING MEMBER PERNELL: So you did do  
12 some studies around the intake for possibly three  
13 months, is that what you're saying?

14 MR. MITCHELL: Yes, I think there were  
15 three sampling periods that were conducted by Dr.  
16 Dan Pondella. And they've been submitted prior.  
17 It was an attempt to correlate what we saw site-  
18 specific-wise in the area around the El Segundo  
19 intake and discharge with a long-term  
20 ichthyoplankton database that was available for  
21 King Harbor. It's about five miles away,  
22 something like that.

23 Those studies have been ongoing, oh,  
24 gosh, since the '60s, originally started by Dr.  
25 John Stephens from Occidental. And the baton kind

1 of passed to Dan Pondella. We examined that  
2 database, along with the help of Milt Love, Dr.  
3 Milt Love that some of the people here know.  
4 There were a number of people involved in that  
5 project.

6 PRESIDING MEMBER PERNELL: Okay, thank  
7 you.

8 MR. ABELSON: Can I follow up on that?

9 HEARING OFFICER SHEAN: One question, go  
10 ahead.

11 CROSS-EXAMINATION

12 BY MR. ABELSON:

13 Q So I take it the answer to the question  
14 the Commissioner asked was for three months you  
15 guys did some surveys off El Segundo, and that's  
16 the extent of the studies that exist at the site,  
17 is that correct?

18 MR. MITCHELL: No. That isn't what I  
19 said. I said that there were ongoing monitoring  
20 programs that are NPDES, that sampled benthic --  
21 fauna, and there's fish sampling at the site, et  
22 cetera. That's a long stream of data.

23 MR. ABELSON: I'm sorry, maybe my  
24 question was unclear and I apologize. I thought  
25 the Commissioner was asking about entrainment

1 studies.

2 MR. MITCHELL: No, sir, he asked  
3 studies.

4 PRESIDING MEMBER PERNELL: Studies,  
5 period.

6 HEARING OFFICER SHEAN: Okay.

7 MR. McKINSEY: I need to point out  
8 something here. Mr. Mitchell has referred to a  
9 document which we have not offered into evidence  
10 in this proceeding. It was also referred to by  
11 Mr. Ambrose, and one of my intentional questions  
12 with Mr. Ambrose was to indicate that we hadn't  
13 offered this into evidence.

14 And that is the supporting impingement  
15 and entrainment study done using King Harbor data.  
16 One of the reasons we have not introduced that  
17 into evidence is that we're not presenting that  
18 full panel anymore. We didn't feel we needed it.

19 So, I can offer it into evidence. We  
20 can ignore the fact that it's not in evidence, but  
21 he's made comments based on that document which we  
22 haven't actually put in our materials in the  
23 record.

24 It's been referred to by the parties,  
25 so -- but I don't think they actually specifically

1 put it into the record, either. And so that study  
2 that we performed at the request of the CEC Staff  
3 hasn't been put into the proceeding yet. So.

4 HEARING OFFICER SHEAN: Okay. Is it the  
5 applicant's desire that the study be used by the  
6 Commission to support a finding? Or is it a  
7 matter that it has merely been referred to?

8 MR. MCKINSEY: We have no desire or feel  
9 that you need to rely upon it. However, I'm just  
10 pointing this out because he's cited to it in  
11 response to a question. And if you feel, then we  
12 can certainly put it in. Or if the opposing  
13 counsel --

14 HEARING OFFICER SHEAN: Is it otherwise  
15 in the Commission's administrative record? Has it  
16 been docketed?

17 MR. MCKINSEY: Yes.

18 HEARING OFFICER SHEAN: Okay. All  
19 right, well, if that's satisfactory to the other  
20 parties, we'll leave it at merely being docketed.

21 All right. That will conclude the  
22 cross-examination by the staff and its side. And  
23 we'll go now to the examination by the applicant  
24 of the staff's side witnesses.

25 MR. MCKINSEY: Thank you. I'd like to



1 begin on the alternatives area, and specifically  
2 Mr. Sapudar and Mr. Schooner (sic). And then  
3 we --

4 MR. REEDE: Excuse me. Who's on the  
5 phone?

6 MR. PETERSON: Lee Peterson, Daily  
7 Breeze.

8 MR. REEDE: Okay. Dr. Raimondi, are you  
9 still on the phone?

10 DR. RAIMONDI: I am.

11 MR. REEDE: Chairman Keese, are you back  
12 on the phone?

13 HEARING OFFICER SHEAN: No, he's  
14 conducting the Business Meeting.

15 MR. McKINSEY: So we would call Mr.  
16 Sapudar and Mr. Schooner.

17 MR. SCHOONMAKER: Schoonmaker.

18 MR. McKINSEY: Schoonmaker, thank you.  
19 My nautical life is coming through.  
20 Whereupon,

21 RICHARD SAPUDAR and JAMES SCHOONMAKER  
22 were recalled as witnesses herein, and having been  
23 previously duly sworn, were examined and testified  
24 further as follows:

25 (Pause.)

1 HEARING OFFICER SHEAN: I'd just remind  
2 the panel that they have been previously sworn.

3 CROSS-EXAMINATION

4 BY MR. McKINSEY:

5 Q Mr. Sapudar, you testified yesterday  
6 that, I believe this is correct, that the  
7 discharge that would proceed from El Segundo  
8 Generating Station back to Hyperion would be  
9 industrial wastewater, correct?

10 MR. SAPUDAR: I said that is an option,  
11 to discharge it back to Hyperion under an  
12 industrial wastewater discharge permit, yes.

13 MR. McKINSEY: So would that material  
14 that's being discharged back be properly  
15 classified as thermal waste?

16 MR. SAPUDAR: Most likely because there  
17 wouldn't be a whole lot else added to it by El  
18 Segundo would be the assumption.

19 MR. McKINSEY: Are you familiar with how  
20 thermal waste is defined in the California thermal  
21 plan?

22 MR. SAPUDAR: Yes.

23 MR. McKINSEY: And does the use of the  
24 water at El Segundo Generating Station for cooling  
25 fall under that definition of thermal waste under

1 the California thermal plan?

2 MR. SAPUDAR: It probably does, yes.

3 MR. McKINSEY: The California thermal  
4 plan has a section in it for new discharges, are  
5 you familiar with that section?

6 MR. SAPUDAR: Yes, I am.

7 MR. McKINSEY: And would you agree that  
8 the section for new discharges requires that the  
9 temperature of the discharge waters not exceed the  
10 natural surrounding or receiving waters by 20  
11 degrees?

12 MR. SAPUDAR: In the case where a  
13 exception was not requested and granted by the  
14 Regional Board, that would be true.

15 MR. McKINSEY: So you would agree that  
16 it expressly states that as one of the  
17 requirements for a new discharge?

18 MR. SAPUDAR: It's a prescribed number,  
19 yes.

20 MR. McKINSEY: Would you also agree that  
21 the ocean plan, the California ocean plan, clearly  
22 applies to the five-mile outfall at Hyperion?

23 MR. SAPUDAR: I believe it applies to  
24 the Hyperion permit, yes.

25 MR. McKINSEY: And why would you say

1       that the California ocean plan applies to Hyperion  
2       outfall?

3               MR. SAPUDAR:  Because I believe they  
4       have a thermal limit that's based on the thermal  
5       plan.  I'm not totally familiar with the Hyperion  
6       NPDES permit, but that's my understanding, to the  
7       best of my knowledge.

8               MR. MCKINSEY:  Well, I was referring to  
9       the California ocean plan, not the thermal plan --

10              MR. SAPUDAR:  Okay, okay.

11              MR. MCKINSEY:  -- at this point.  So, --

12              MR. ABELSON:  Could we get a  
13       clarification on that, which plan exactly you are  
14       referring to?

15              MR. MCKINSEY:  I'm referring to the  
16       California ocean plan, and I'm asking whether the  
17       California ocean plan would or would not apply, or  
18       in effect does or does not apply to the existing  
19       use at the Hyperion outfall.

20              MR. SAPUDAR:  I believe it does, yes.

21              MR. MCKINSEY:  Do you have any idea why  
22       they would make it applicable?

23              MR. SAPUDAR:  Basically the law is  
24       written so that if a discharge to federal waters,  
25       nonstate territorial waters, can affect state

1       waters, the state can apply the California ocean  
2       plan and the thermal plan, which is incorporated  
3       by reference, to that discharge.

4               MR. McKINSEY:  So, that would indicate  
5       that even though Hyperion's outfall is at the  
6       five-mile point, that the L.A. Regional Water  
7       Quality Control Board probably concluded that its  
8       discharge could affect the state's territorial  
9       waters?

10              MR. SAPUDAR:  That would seem logical.

11              MR. McKINSEY:  You also discussed the  
12       difference between whether or not the discharge at  
13       Hyperion would fall under federal requirements  
14       only, or also fall under the California  
15       requirements.  Do you recall that testimony?

16              MR. SAPUDAR:  Would you clarify that?

17              MR. McKINSEY:  You indicated that there  
18       were two potential requirements that might be put  
19       upon the discharge at the five-mile outfall.  One  
20       of them were the federal Clean Water Act  
21       requirements, and the other was the California's  
22       thermal plan and its requirements.

23              MR. SAPUDAR:  Exactly.

24              MR. McKINSEY:  If only the federal  
25       requirements applied what would be necessary in

1 order to discharge the waste at the five-mile  
2 outfall?

3 MR. SAPUDAR: Under the federal standard  
4 it's 316A studies, demonstration studies have been  
5 required. And that requires a demonstration that  
6 the discharge would not basically adversely impact  
7 aquatic life. There's no prescribed number. It's  
8 a site-specific number.

9 MR. MCKINSEY: So are you contending  
10 that you think it is feasible to obtain compliance  
11 under the federal Clean Water Act section 316A at  
12 this time with this description of the discharge  
13 at the outfall?

14 MR. SAPUDAR: I'm saying it's possible.  
15 I don't know whether it's achievable or not. You  
16 wouldn't know that until you conducted the  
17 studies, until you applied for the permit. I  
18 can't predict what the Regional Board would do or  
19 how the studies would turn out.

20 MR. MCKINSEY: If we were to consider  
21 the fact that we agree that we're adding thermal  
22 waste through this cooling option to that  
23 discharge at the Hyperion outfall, then doesn't  
24 that mean that the California thermal plan would  
25 certainly apply, given that the California ocean

1 plan already applies?

2 MR. ABELSON: I'd object to that as  
3 calling for a conclusion of law. And also asked  
4 and answered. And the documents speak for  
5 themselves, Mr. Shean, and they say what applies  
6 and what does not on the face of it. The tests  
7 are straightforward.

8 MR. MCKINSEY: I first disagree it's  
9 been asked and answered. I haven't asked him if  
10 the California thermal plan applies. I've only  
11 asked him if the California ocean plan applies.  
12 And I'm specifically referring to the proposal  
13 that they're putting before you implying that it  
14 would comply with the law and that it is  
15 permissible. And then they've already rendered  
16 opinions as to whether or not they think there can  
17 even be a variance on that California thermal  
18 plan.

19 So I certainly think it would be  
20 acceptable for me to ask him if he feels that the  
21 California thermal plan would or would not apply  
22 to this discharge.

23 HEARING OFFICER SHEAN: This area has  
24 already been opened by the staff, so I will allow  
25 the question.

1 MR. SAPUDAR: As the thermal plan is  
2 part of the California ocean plan I would say  
3 probably so.

4 MR. McKINSEY: So then as I understand  
5 your testimony yesterday you're indicating that  
6 you believe that a variance could be obtained for  
7 that thermal discharge at the five-mile outfall  
8 for the staff's proposed cooling option?

9 MR. SAPUDAR: I'm saying that's an  
10 option that's available under the law. That's  
11 what I said.

12 MR. McKINSEY: If that was not available  
13 would there be any other way to discharge the  
14 heated thermal waste out that outfall?

15 MR. SAPUDAR: Under the California ocean  
16 plan and thermal plan probably not. Under the  
17 federal law, the 316A, it's still possible.

18 MR. McKINSEY: But you've indicated that  
19 it would appear that the California thermal plan  
20 would apply to that outfall?

21 MR. ABELSON: Objection, that is not his  
22 testimony.

23 HEARING OFFICER SHEAN: Why don't you  
24 ask the question.

25 MR. McKINSEY: Does the California



1 thermal plan apply to the Hyperion outfall?

2 MR. SAPUDAR: It appears that it does.

3 MR. McKINSEY: And if it applied, would  
4 there be any other option available, other than  
5 getting a variance, to discharge thermal waste out  
6 that outfall?

7 MR. SAPUDAR: Using the Hyperion NPDES  
8 permit?

9 MR. McKINSEY: That permit or --

10 MR. SAPUDAR: If you couldn't get a  
11 variance with a new permit, the same situation  
12 would apply; they'd be limited to the 20 degrees.

13 MR. McKINSEY: So in both cases, whether  
14 we're able to use the existing permit or a new  
15 permit, we would have to get a variance?

16 MR. SAPUDAR: Under the Hyperion permit  
17 with the 100 degree maximum temperature limit,  
18 what the alternative proposes is to basically use  
19 the unused portion of the thermal limit that  
20 Hyperion is currently not using; in a nutshell  
21 that's what we're proposing.

22 So it could be that as long as the new  
23 discharge did not cause the Hyperion discharge to  
24 exceed its permit limits of 100 degrees, no  
25 variance would be necessary.

1           If it were to cause the Hyperion waste  
2       discharge to exceed its maximum thermal -- it  
3       probably would require an exception to the thermal  
4       plan.

5           MR. MCKINSEY:  Isn't it true that based  
6       on your proposal that you anticipate that it will  
7       exceed 100 degrees?

8           MR. SAPUDAR:  I believe we said it could  
9       reach, under the very worst case scenario, about  
10      105 to allow the plant to operate at basically  
11      full capacity.

12          MR. MCKINSEY:  So what you're indicating  
13      is that you believe that the plant would operate  
14      at the full capacity under the worst case scenario  
15      with a discharge limit of 105 degrees?

16          MR. SAPUDAR:  What we said is that would  
17      be the temperature that would be required for the  
18      plant to operate under those conditions.  The  
19      plant could obviously operate at less than  
20      absolute maximum capacity.

21          MR. MCKINSEY:  You contend that it would  
22      be able to, under worst case conditions, operate  
23      at full power with 105 degree limit?

24          MR. SAPUDAR:  Yeah, and I can confirm  
25      that with Mr. Schoonmaker, also.

1           MR. McKINSEY: In fact, my next question  
2 is addressed to you, Mr. Schoonmaker. Yesterday  
3 you testified that there are several plants that  
4 are currently using secondary water for cooling,  
5 correct?

6           MR. SCHOONMAKER: I testified that the  
7 Ice Gen Plant was using secondary water for  
8 cooling,

9           MR. McKINSEY: Specifically I think you  
10 referred to the Carson Ice Power Plant, and --

11          MR. SCHOONMAKER: Carson Ice Gen, yes.

12          MR. McKINSEY: -- also Magnolia?

13          MR. SCHOONMAKER: Referred to Magnolia  
14 as using wastewater. I did not say it was  
15 secondary wastewater.

16          MR. McKINSEY: So is it your contention  
17 that Carson Ice uses secondary water for cooling  
18 purposes?

19          MR. SCHOONMAKER: Yes.

20          MR. McKINSEY: And can you describe what  
21 you mean by secondary water?

22          MR. SCHOONMAKER: I'm not an expert in  
23 wastewater treatment. The secondary wastewater  
24 that they're used at the Carson Ice Gen was  
25 described by the supplier of the wastewater as

1 secondary treatment wastewater.

2 MR. McKINSEY: Would it surprise you to  
3 find out that it's tertiary treated water?

4 MR. SCHOONMAKER: It would surprise me,  
5 yes.

6 MR. McKINSEY: Do either of those plants  
7 have a once-through cooling facility?

8 MR. SCHOONMAKER: No.

9 MR. McKINSEY: What type of structure do  
10 they have?

11 MR. SCHOONMAKER: Both of them have  
12 cooling towers.

13 MR. McKINSEY: And what is the water  
14 need for a project that's using cooling towers  
15 compared to a project that's using once-through  
16 cooling?

17 MR. SCHOONMAKER: The need is for far  
18 less water flow.

19 MR. McKINSEY: Couldn't that be on the  
20 order of 20 or 30 times less?

21 MR. SCHOONMAKER: It could be, yes.

22 MR. McKINSEY: So do you think it's at  
23 all applicable to draw comparisons to Magnolia or  
24 Carson Ice for purposes of evaluating the  
25 feasibility of your proposal here?

1 MR. SCHOONMAKER: Yes, I do. The water  
2 is water; the wastewater is used in one case in a  
3 smaller volume, but it's still using wastewater  
4 for cooling. So I think that there's many  
5 parallel characteristics.

6 MR. McKINSEY: I'd like you to turn to  
7 page A-14 in your testimony. This is the factual  
8 cooling options report; it's the appendix A.

9 MR. SCHOONMAKER: Got it.

10 MR. McKINSEY: In here under the cooling  
11 water flow option section at the end of the first  
12 paragraph you indicate what the low flow condition  
13 would be at Hyperion Treatment Plant for available  
14 water.

15 MR. SCHOONMAKER: Are you referring to  
16 the discharge temperature effects paragraph?

17 MR. McKINSEY: No, the first paragraph,  
18 cooling options figure 2; it's a graphic  
19 representation.

20 MR. SCHOONMAKER: Yes, sir.

21 MR. McKINSEY: What is the low flow  
22 number that you're providing as the worst case  
23 scenario?

24 MR. SCHOONMAKER: The brown line you're  
25 referring, or gold-colored line, the minimum flow

1 day?

2 MR. McKINSEY: No, in fact, this may be  
3 where we may be on -- there's a couple of these  
4 documents that have different paginations. The  
5 page I have has a drawing on it.

6 MR. SCHOONMAKER: Right.

7 MR. McKINSEY: And underneath a  
8 paragraph.

9 MR. SCHOONMAKER: Sketch G.

10 MR. McKINSEY: Right. And the paragraph  
11 begins: "Cooling water flow considerations" the  
12 first paragraph under that header.

13 MR. SCHOONMAKER: Yes.

14 MR. McKINSEY: What do you indicate is  
15 the extreme low flow, the worst case situation for  
16 flow available from Hyperion?

17 MR. SCHOONMAKER: Talk about average  
18 very low flow day, yes, sir.

19 MR. McKINSEY: So what is the extreme  
20 low flow amount available that you refer to?

21 MR. SCHOONMAKER: The extreme low flow  
22 was the lowest volumetric flow that the Hyperion  
23 personnel were able to determine when we had our  
24 meetings at Hyperion.

25 MR. McKINSEY: Is that amount 130

1 million gallons per day?

2 MR. SCHOONMAKER: Yes, sir.

3 MR. McKINSEY: You also, in the next  
4 paragraph, refer to West Basin Municipal Water  
5 District's currently taking up to 30 million  
6 gallons per day for further processing, correct?

7 MR. SCHOONMAKER: The numbers there show  
8 28 million gallons a day, yes.

9 MR. McKINSEY: Would you agree that  
10 there are other places in your testimony where you  
11 say it's essentially 30 million gallons per day?

12 MR. SCHOONMAKER: Yes.

13 MR. McKINSEY: That would mean that if  
14 the West Basin is not able to use recycled water  
15 from El Segundo Generating Station after El  
16 Segundo Generating Station has used it, then there  
17 would only be 100 million gallons per day of flow  
18 available for cooling, correct?

19 MR. SCHOONMAKER: If the flow at the  
20 moment that it was needed to West Basin was 30,  
21 and if West Basin determined that they could not  
22 take the water that was returned, then under that  
23 circumstance there would be 100 million gallons  
24 left.

25 MR. McKINSEY: So, the 100 million

1 gallon per day, at least in terms of a worst case  
2 scenario should be something that you would design  
3 for, correct?

4 MR. SCHOONMAKER: Yes.

5 MR. McKINSEY: You testified yesterday  
6 that the delta T, the differential temperature  
7 across the condenser for the project as we  
8 proposed in our AFC would be 19 degrees at full  
9 power, correct?

10 MR. SCHOONMAKER: I testified that that  
11 was in the applicant's heat balance, yes.

12 MR. McKINSEY: Do you agree or disagree  
13 with that number as we proposed it?

14 MR. SCHOONMAKER: I agree with your  
15 number as with all the other heat balance elements  
16 that were in it.

17 MR. McKINSEY: So you should be familiar  
18 with the formula that we proposed yesterday that  
19 provides a general equation for heat transfer?

20 MR. SCHOONMAKER: I am.

21 MR. McKINSEY: And in that equation what  
22 are the key parameters that determine the heat  
23 transfer?

24 MR. SCHOONMAKER: The flow rate and the  
25 delta T, as was stated by your witness.



1           MR. McKINSEY: So, if we were dealing  
2 with full power we could essentially keep the heat  
3 transfer constant? If we wanted to make  
4 comparisons of different flow rates?

5           MR. SCHOONMAKER: At any constant power  
6 level you could maintain a given delta Q or heat  
7 flow, yes.

8           MR. McKINSEY: So it's your testimony  
9 that we could survive with a 19 degree  
10 differential temperature at a 100 million gallon  
11 per day flow rate, correct?

12          MR. SCHOONMAKER: Survive is an  
13 interesting term. Yes.

14          MR. McKINSEY: In other words we could  
15 operate the plant?

16          MR. SCHOONMAKER: You could operate the  
17 plant.

18          MR. McKINSEY: And we could operate the  
19 plant full power because that's the delta T for 19  
20 degrees Fahrenheit?

21          MR. SCHOONMAKER: I did not say that.  
22 And, in fact, at 100 million gallons a day and a  
23 19 -- sorry -- at 100 million gallons a day the  
24 power level that you could operate the plant at  
25 would depend upon the temperature of the water at

1       that particular time.

2               And my calculations showed that under  
3       some significant portion of the year when the  
4       water temperature was low enough, that you would  
5       be able to operate at substantial loads.

6               MR. McKINSEY:  So to operate at full  
7       power the delta T would be much higher than 19  
8       degrees --

9               MR. SCHOONMAKER:  And what --

10              MR. McKINSEY:  -- at 100 million gallons  
11       per day flow rate?

12              MR. SCHOONMAKER:  I'm sorry, I need to  
13       know what you mean by full power.

14              MR. McKINSEY:  The heat balance that we  
15       provided in the AFC for our full power operation.

16              MR. SCHOONMAKER:  Your heat balance at  
17       two basic power levels; one was the full combined  
18       cycle power level, and the other one was the full  
19       power level with steam injection and auxiliary  
20       firing of the boilers.

21              MR. McKINSEY:  And it's that latter that  
22       we're referring to, because that's the power level  
23       at which we would produce our maximum megawatt  
24       output.

25              So, at that power level you would say

1       that the delta T at 100 million gallons per day  
2       would be much greater than 19 degrees Fahrenheit?

3               MR. SCHOONMAKER: I would.

4               MR. McKINSEY: In fact, specifically we  
5       know that the delta T at 207 million gallons per  
6       day for full power would be 19 degrees?

7               MR. SCHOONMAKER: That's correct.

8               MR. McKINSEY: And so if we dropped the  
9       flow rate from 207 million gallons per day to 100  
10      million gallons per day, we could very easily  
11      calculate the delta T, correct?

12              MR. SCHOONMAKER: That's correct.

13              MR. McKINSEY: And --

14              MR. SCHOONMAKER: Sorry, it's not quite  
15      that easy. That is if you attempted to maintain  
16      full power, the 685 megawatts, if the ambient  
17      temperature was appropriate for that, at only 100  
18      million gallons a day rate, the condenser pressure  
19      would rise. That condenser pressure rise would  
20      then decrease the amount of steam flow in the  
21      process, steam turbine. And there would be a  
22      balance that would occur. And that balance may or  
23      may not occur at a backpressure that you like to  
24      operate at.

25              What I did not say that at 100 million

1 gallons a day under the extreme temperature  
2 conditions you would be able to operate at 685  
3 megawatts.

4 MR. McKINSEY: The general, what you're  
5 referring to are performance losses that occur  
6 under heightened atmospheric conditions, correct?

7 For instance when higher ambient  
8 temperatures are available you cannot sustain the  
9 same power level, correct?

10 MR. SCHOONMAKER: That's approximately  
11 correct. Actually the plant is equipped with  
12 inlet cooling where they use evaporative cooling  
13 to cool the inlet air, and so the effect of the  
14 ambient temperature is mitigated by a large  
15 extent, but --

16 MR. McKINSEY: Well, I think you had  
17 just indicated that we would not be able to  
18 sustain full power at 100 million gallons per day  
19 cooling, right?

20 MR. SCHOONMAKER: Yes.

21 MR. McKINSEY: Would it be fair to say  
22 that we would get approximately close to that full  
23 power level?

24 MR. SCHOONMAKER: At 100 million gallons  
25 a day rate I think you can get the combined cycle

1 power level quite often. I think 100 percent of  
2 the time.

3 MR. MCKINSEY: But as for the full  
4 power, couldn't we get approximately close to it?  
5 All we would have to do is increase our delta T  
6 across the condenser and design for it?

7 MR. SCHOONMAKER: You could get a full  
8 power but it would not be the same full power.  
9 That is if you -- there would be a rise in the  
10 condenser pressure, and therefore a power  
11 decrease.

12 So there would be definitely a sacrifice  
13 involved.

14 MR. MCKINSEY: Wouldn't it also be fair  
15 to say that if we halve the flow rate from 207 to  
16 100 million gallons per day, we would  
17 approximately double the delta T across the  
18 condenser?

19 MR. SCHOONMAKER: For a constant  
20 megawatts you would approximately double. I have  
21 to think about that for a minute, but, yes.

22 MR. MCKINSEY: So then under the extreme  
23 condition of only having 100 million gallons per  
24 day available, if we wanted to operate the project  
25 as designed or as close to it as we could get, the

1 delta T across the condenser could be on the order  
2 of 38 degrees, correct?

3 MR. SCHOONMAKER: If, for the limited  
4 time period that the flow is down to that level,  
5 if you wanted to operate close to the 685  
6 megawatts you'd have great difficulty.

7 MR. MCKINSEY: And how often is that  
8 limited time period when we would only be at 100  
9 million gallons per day?

10 MR. SCHOONMAKER: It varies. Our --

11 HEARING OFFICER SHEAN: Excuse me. Dr.  
12 Schoonmaker, I'm going to ask you to go to the  
13 podium to complete your testimony because we have  
14 a note being passed in his field of vision. We  
15 asked you not to do that. If you'll please have  
16 Dr. Ambrose put the small mike in front of him up  
17 at the podium.

18 MR. ABELSON: Just for the record, Mr.  
19 Shean, number one, as the attorney, I didn't pass  
20 any note to my client. Number two, we are a team  
21 over here, that's the way you all have set it up.  
22 But I don't know whether you regard --

23 HEARING OFFICER SHEAN: Yes, and we  
24 asked at the very beginning of the proceeding  
25 there would be no coaching of witnesses as they're

1       testifying.

2               MR. ABELSON:  I'm not coaching anybody.

3               HEARING OFFICER SHEAN:  And a piece of  
4       paper went --

5               PRESIDING MEMBER PERNELL:  All right,  
6       all right --

7               HEARING OFFICER SHEAN:  -- in front of  
8       the field of vision of the witness.

9               PRESIDING MEMBER PERNELL:  Why don't we  
10       proceed.  Please continue.

11              MR. SCHOONMAKER:  I'm sorry, I forgot  
12       your question now, Mr. McKinsey.

13              MR. MCKINSEY:  I think we had agreed  
14       that under extreme conditions that there could be  
15       a delta T of 39 degree across the -- 38 degrees  
16       across the condenser.

17              MR. SCHOONMAKER:  I think we agreed that  
18       if you tried to operate at your full 685 megawatts  
19       with 100 million gallons a day you could get that  
20       kind of a delta T, or approximately.  It would be  
21       a little less, but approximately.

22              MR. MCKINSEY:  And I'd asked you how  
23       often would we have that extreme low flow  
24       condition of 100 million gallons per day.

25              MR. SCHOONMAKER:  What I testified to

1 and what I know is that there is an hour a day or  
2 from an hour a day to a few hours a day, depending  
3 upon what day it is, that the flow rate available  
4 from Hyperion is 130 million gallons a day,  
5 approximately an hour.

6 The things that I don't know as a  
7 certainty is whether the West Basin, under that  
8 particular time of day would take 30 million  
9 gallons a day. I don't know that in that the time  
10 I asked that question, at least, the West Basin  
11 people did not know the diurnal variation of their  
12 flow rates. They may know now, but at the time I  
13 asked I was not able to determine that.

14 But if you try and get to 100 million  
15 gallons a day the plant would have great  
16 difficulty operating at 685 megawatts. I would  
17 absolutely agree.

18 MR. McKINSEY: Well, that wasn't my  
19 question. My question was how often did you  
20 anticipate the extreme low flow condition of 100  
21 million gallons per day?

22 MR. ABELSON: I think that's been asked  
23 and answered.

24 MR. McKINSEY: And I think you answered  
25 it. But I just reiterate, that wasn't my



1 question.

2 MR. SCHOONMAKER: Yes, sir.

3 MR. McKINSEY: So, at what times will we  
4 see the other extreme condition that you  
5 described, which is an inlet temperature, a  
6 discharge temperature from Hyperion of about 85  
7 degrees of our incoming cooling water?

8 MR. SCHOONMAKER: Again, I know that or  
9 I should say I was advised by Hyperion that their  
10 temperature did go up to 85. I was not able to  
11 find a frequency of that happening.

12 I've been told that the temperature  
13 varies from 70 to 85, but I was not told that we  
14 had 85 for two days, or we had 85 for 20 days, or  
15 200 days.

16 MR. McKINSEY: You did testify yesterday  
17 that generally the temperature of the discharge  
18 from Hyperion tracks and follows the atmospheric  
19 temperature.

20 MR. SCHOONMAKER: I did.

21 MR. McKINSEY: And I believe it's in  
22 your testimony that 85 degree condition is a  
23 potential condition during the summertime period?

24 MR. SCHOONMAKER: That's correct.

25 MR. McKINSEY: So, when we're receiving

1 85 degree inlet temperature water, and we have a  
2 delta T at 38 degrees, what is our discharge  
3 temperature out of the condenser?

4 MR. SCHOONMAKER: I can't do the  
5 arithmetic quite that way, but

6 MR. McKINSEY: It would be 123 degrees.  
7 The 85 plus 38.

8 MR. SCHOONMAKER: That sounds correct.  
9 If you tried to operate at 685 megawatts at a  
10 point of time when West Basin was taking 30, and  
11 the point of time that 130 was available from  
12 Hyperion, and you had an 85 degree temperature  
13 from the Hyperion flow. That's exactly the case.

14 MR. McKINSEY: So, that would be a worst  
15 case scenario?

16 MR. SCHOONMAKER: That would be a worst  
17 case scenario.

18 MR. McKINSEY: And the discharge  
19 temperature at that point would be 123 degrees?

20 MR. SCHOONMAKER: If you were attempting  
21 to operate at 685 megawatts then the temperature  
22 would be 123, yes.

23 MR. McKINSEY: So then in your  
24 testimony, and this could go to either of you,  
25 have you analyzed for exceedances of either 100

1 degree level or of what we had contended would be  
2 the coastal water plus 20 degree temperature limit  
3 of this order?

4 MR. SAPUDAR: What do you mean by  
5 analyze?

6 MR. McKINSEY: In other words, have you  
7 considered your ability to get a variance under  
8 that condition?

9 MR. SCHOONMAKER: Above 100 is what I'm  
10 understanding?

11 MR. McKINSEY: Above 100 or above the  
12 limit that we propose, which would be coastal  
13 waters plus 20 degrees.

14 MR. SAPUDAR: That would be a  
15 biologically based decision, subject to the 316A  
16 demonstration study of biological impacts.

17 MR. FLEISCHLI: I'd like to object.

18 MR. SAPUDAR: I could speculate but --

19 MR. FLEISCHLI: I think the question  
20 assumes facts not in evidence when they're  
21 testifying in terms of what the discharge  
22 temperature would be, I don't know that it's clear  
23 that that's at the point when it leaves the  
24 facility, or at the point when it reaches the end  
25 of the five-mile pipe and the diffuser and all of

1       that.

2               So I'm a little confused about that  
3       issue.  Whether that has actually been answered  
4       relative to compliance with the thermal plan.

5               MR. MCKINSEY:  I would agree with the  
6       question you're making, except the way I asked the  
7       question was pretty straightforward.  I asked did  
8       you or did you not analyze or consider the ability  
9       to get a variance with a discharge temperature,  
10      and I intend the discharge temperature at the  
11      Hyperion outfall of 123 degrees.

12              And I agree with the other part, I  
13      haven't made a connection --

14              MR. FLEISCHLI:  But I -- are you  
15      assuming that the testimony that you've heard so  
16      far is that the discharge at the end of the five-  
17      mile pipe will be 123 degrees?  That's my  
18      question.  Because he testified that it would be  
19      123 degrees under those conditions, but it was  
20      unclear as to whether that was the end of the  
21      pipe, at the end of the five-mile, or when it was  
22      leaving the facility.

23              MR. MCKINSEY:  I'll re-ask my question.

24              MR. FLEISCHLI:  Thank you.

25              MR. MCKINSEY:  My question is have you

1 considered the ability to get a variance with a  
2 discharge of 123 degrees at the Hyperion outfall?

3 MR. SAPUDAR: And I'll have to answer  
4 again, that would -- I'd have to speculate on my  
5 part. And what I'm saying is that the ability to  
6 get a variance is based on a demonstration that  
7 the variance will not cause adverse impacts to  
8 biological life.

9 I can't say whether you can get a  
10 variance to that extent or not. It would depend  
11 on whether the studies support that. That's all I  
12 can really answer.

13 MR. McKINSEY: Are you aware of any  
14 facility in the State of California that has  
15 gotten, I'll start with a 23 degree variance  
16 that's expected to occur periodically?

17 MR. SAPUDAR: Not a new facility.  
18 Obviously existing facilities are operating at  
19 elevated temperatures and have been for years over  
20 the 20 degree.

21 MR. McKINSEY: Specifically a 23 degree  
22 variance from a prescribed limit?

23 MR. SAPUDAR: I'm not familiar with any  
24 plant that does, no.

25 MR. McKINSEY: Are you familiar with any

1 facility that's got a variance -- 50 degrees?

2 MR. SAPUDAR: Five-zero?

3 MR. McKINSEY: Five-zero.

4 MR. SAPUDAR: Personally, no.

5 MR. McKINSEY: And wouldn't that be  
6 approximately the variance necessary if this was  
7 considered a new discharge and the discharge  
8 temperature was 123 degrees?

9 MR. ABELSON: I'm sorry, if we have it  
10 transcribed can we hear the question read back  
11 because I didn't catch that at all.

12 MR. McKINSEY: The question is wouldn't  
13 a variance of about 50 degrees be necessary if we  
14 were to apply the coastal water limit and we had a  
15 discharge of 123 degrees.

16 MR. SAPUDAR: Assuming at the end of the  
17 pipe the discharge temperature was 123 degrees,  
18 that would be approximately right.

19 MR. McKINSEY: Okay. And now I can  
20 address the point that you're making. Do you  
21 contend that the water cools from the time it  
22 leaves the condenser to the time it reaches the  
23 Hyperion outfall?

24 MR. SCHOONMAKER: No, I've not made that  
25 contention.

1           MR. McKINSEY: So you would expect that  
2           the temperature leaving the condenser would be  
3           approximately the same as when it reaches the  
4           Hyperion outfall?

5           MR. SCHOONMAKER: Actually my  
6           expectation is not quite that. That is, I  
7           attempted to run heat transfer calculations and my  
8           attempt I have not presented into evidence because  
9           I'm not confident in it. My attempt says that  
10          there is some heat transfer that occurs. But I'm  
11          not prepared to testify to the amount of that  
12          temperature drop because there was too many  
13          variables and a limited amount of time to do it.

14          MR. McKINSEY: Mr. Sapudar, yesterday we  
15          heard from Mr. Gold, and I offered as a general  
16          idea, that a warmer water has lower density making  
17          it more buoyant. If we accept that as a  
18          principle, the greater the discharge temperature  
19          of the water at Hyperion outfall the more buoyant  
20          it would be, correct?

21          MR. SAPUDAR: Correct.

22          MR. McKINSEY: Meaning that the more  
23          temperature it has the increased likelihood of the  
24          non-disinfected secondary effluent reaching the  
25          surface waters of Santa Monica Bay, correct?

1           MR. SAPUDAR: It could possibly rise  
2 farther in the water column. Whether it would  
3 surface or not, I can't say.

4           MR. MCKINSEY: Did you hear the  
5 testimony yesterday that it has occasionally  
6 surfaced?

7           MR. SAPUDAR: Yes, I did.

8           MR. MCKINSEY: And thus if we were to  
9 increase the discharge temperature that would  
10 increase the likelihood and the frequency of  
11 surfacing?

12          MR. SAPUDAR: It could.

13          MR. MCKINSEY: And that clearly presents  
14 another way in which a thermal discharge at the  
15 Hyperion outfall would indicate that the  
16 California coastal plan would apply -- excuse me,  
17 the California thermal plan would apply?

18          MR. ABELSON: Is there a question there?  
19 It seemed to be a statement.

20          MR. MCKINSEY: Would the fact that a  
21 heightened thermal discharges cause increased  
22 surfacing, or could cause increased surfacing,  
23 increase the likelihood that the California  
24 thermal plan would apply to the discharge?

25          MR. SAPUDAR: I believe the way the law



1 is written that you have to consider the impact on  
2 other pollutants; it's the total discharge. So,  
3 that's probably a fair statement.

4 MR. McKINSEY: And you would agree that  
5 if the California thermal plan applied, and a new  
6 NPDES permit was required, this was considered a  
7 new discharge, that the limit would be the  
8 receiving waters plus 20 degrees?

9 MR. SAPUDAR: That's the way the thermal  
10 plan is written, yes.

11 MR. McKINSEY: Thank you. That's all  
12 the questions I had on alternatives, --

13 HEARING OFFICER SHEAN: All right, thank  
14 you, --

15 MR. McKINSEY: -- so I --

16 MR. ABELSON: Redirect --

17 MR. McKINSEY: -- to biology.

18 HEARING OFFICER SHEAN: -- Dr.  
19 Schoonmaker. Thank you. Do you have some  
20 redirect?

21 MR. ABELSON: Yeah.

22 HEARING OFFICER SHEAN: Okay.

23 REDIRECT EXAMINATION

24 BY MR. ABELSON:

25 Q Mr. Sapudar, the California thermal plan

1 has a limit of 20 degrees. Is that the absolute  
2 limit that's allowed, or is there some way that  
3 you can get around that limit under the California  
4 thermal plan?

5 MR. SAPUDAR: I think I've mentioned a  
6 couple times that there is a procedure written in  
7 the thermal plan that allows for the petition for  
8 a variance. And we've covered that just now.  
9 That if you can demonstrate according to the 316A  
10 demonstration studies, the Clean Water Act, that  
11 that discharge will have no adverse impact to  
12 aquatic life, in a nutshell, that a variance can  
13 be granted.

14 MR. ABELSON: And that similar test in  
15 effect of no adverse impact to aquatic life is  
16 language that's similar to what's contained under  
17 the federal rules for discharge?

18 MR. SAPUDAR: In fact, that language is  
19 almost the same. Clearly, the thermal plan as  
20 adopted the 316A approach in the federal law to  
21 obtain a variance.

22 MR. ABELSON: Mr. Schoonmaker, a quick  
23 redirect from you. My colleague, Mr. McKinley --  
24 McKinney -- excuse me, John, --

25 MR. SCHOONMAKER: He's Mr. McKinsey.

1 MR. ABELSON: Mr. McKinsey --

2 MR. MCKINSEY: That's okay, I got his  
3 name wrong.

4 (Laughter.)

5 MR. ABELSON: -- has posited the perfect  
6 storm to you. He's got his project running full  
7 out with duct firing 24 hours a day, with the  
8 maximum temperature of the inlet water being 85 or  
9 86 degrees, and from that he's had you answer, as  
10 an engineer, would that set of facts with only 100  
11 million gallons of water available, result in a 38  
12 degree rise.

13 What's your opinion, as an engineer, as  
14 an operator of these plants, how often one would  
15 be running full out at 6:00 in the morning?

16 MR. SCHOONMAKER: My experience has been  
17 that the time when the highest system load occurs  
18 is definitely not the early hours of the morning.  
19 And therefore my expectation is that the plant  
20 would not have the economic motivation to be  
21 operating at the 685 megawatts, or the full fired,  
22 highest load at those hours of the morning.

23 And I say that partly because the plant  
24 is a very highly efficient power plant when it's  
25 operated at 515 megawatts, it's full combined

1 cycle load. But the margin going from the 515  
2 megawatts up to 685 megawatts includes injection  
3 of steam into the gas turbines that is afterwards  
4 wasted at atmospheric pressure which is a  
5 relatively less efficient power source. And the  
6 generation of steam from auxiliary firing, which  
7 is basically the same heat rate, plus or minus, as  
8 the conventional steam plants.

9 So the economic motivations to operate  
10 with that poor heat rate portion of the megawatts,  
11 that is the megawatts between combined cycle load  
12 and fully fire load, would probably not exist very  
13 frequently at 6:00 in the morning.

14 MR. ABELSON: And the 100 million gallon  
15 flow level, which is again the assumption in Mr.  
16 McKinsey's questions, when you looked at how many  
17 hours a day the Hyperion Plant is operating at  
18 that flow rate what did you find?

19 MR. SCHOONMAKER: That's expressed in  
20 the cooling figure options 2. And on a typical  
21 day specifically the 130 would never be reached.  
22 The occurrence of 130 mgd or less occurred from  
23 the data I've received once. And that was once in  
24 the year 2002. I'm sorry I can't remember the  
25 date now.

1           MR. ABELSON: You may have misunderstood  
2 the question I'm asking, which is that the flow  
3 rate of 100 million gallons per day is a  
4 volumetric, as I understand it, that occurs over  
5 the course of hours and projected into days, is  
6 that correct?

7           MR. SCHOONMAKER: That's correct; 100  
8 mgd, 100 million gallons a day is not meant to  
9 imply a rate for a day. That's meant to imply an  
10 instantaneous rate. It could be converted to  
11 gallons per minute and is regularly converted to  
12 gallons per minute.

13          MR. ABELSON: Based on the one or two  
14 days when flows got anywhere close to that level  
15 how many hours per day was the plant down at 100  
16 million gallon per day flow rate?

17          MR. SCHOONMAKER: At 100 million gallons  
18 a day it was not down to that level ever. The  
19 question that I responded to Mr. McKinsey was for  
20 130 million gallons a day. And it was down at  
21 that level for an hourly reading from Hyperion on  
22 one day.

23          MR. ABELSON: For an hourly read of how  
24 many hours?

25          MR. SCHOONMAKER: One hour.

1 MR. ABELSON: One hour. And that  
2 happened how many days?

3 MR. SCHOONMAKER: One day that I know  
4 of.

5 MR. ABELSON: And that was at what hour  
6 of the day?

7 MR. SCHOONMAKER: Specifically that was  
8 approximately 7:00 in the morning.

9 MR. ABELSON: Thank you. I have no  
10 further redirect.

11 HEARING OFFICER SHEAN: All right, thank  
12 you very much.

13 MS. MURPHY: Mr. Shean, may I -- since  
14 we're on the same side supposedly, can I --

15 HEARING OFFICER SHEAN: Yes.

16 MS. MURPHY: -- ask one question of  
17 redirect?

18 HEARING OFFICER SHEAN: Yes, go ahead.

19 REDIRECT EXAMINATION

20 BY MR. FLEISCHLI:

21 Q Mr. Schoonmaker, have you envisioned  
22 under emergency conditions the possibility of  
23 using a dual system where you would take the  
24 wastewater as well as the limited volume of  
25 seawater in order to cool the facility, if they

1       were to operate at full capacity?

2               MR. SCHOONMAKER:  Yes, in my testimony  
3       yesterday we discussed the potential of using  
4       ocean water in the backup steam.  I think the  
5       Commissioners may remember that we talked about  
6       with arrows coming in for using seawater in the  
7       event of urgent need.

8               If the power plant was urgently needed  
9       and others would have to define urgent, to put out  
10      685 megawatts this unusual time of day, and that  
11      seawater system were available for backup, then we  
12      might have to withdraw 100 mgd flow rate from that  
13      seawater for the hour or more that this emergency  
14      existed.

15              MR. FLEISCHLI:  Thank you.

16              MR. SCHOONMAKER:  But given that that  
17      was available as an alternative.

18              HEARING OFFICER SHEAN:  Okay, thank you  
19      very much.

20              MR. SCHOONMAKER:  Yes, sir.

21              MR. McKINSEY:  Can we have recross?  
22      Limited to their scope.

23              HEARING OFFICER SHEAN:  Oh, I guess,  
24      sure.  Yeah.

25              PRESIDING MEMBER PERNELL:  Yeah.

## 1 RECROSS-EXAMINATION

2 BY MR. MCKINSEY:

3 Q I'm a little confused where you  
4 indicated the low flow, Mr. Schoonmaker, would be  
5 one time per year. On the same page I referred  
6 you to at the beginning of this testimony I think  
7 you indicate it's three to five times per year.

8 MR. SCHOONMAKER: My limited data, I had  
9 six months worth of full diurnal data. And we  
10 observed one time within that full six months of  
11 data that we got down to approximately 130.

12 My extrapolation said that, you know,  
13 that might happen more frequently if I had a full  
14 year's worth of data that I didn't have.

15 I'm working from very limited data, and  
16 I freely admit that my data is not -- it's  
17 appropriate for a study, let's put it that way,  
18 rather than appropriate for design.

19 MR. MCKINSEY: Thank you. And, Mr.  
20 Sapudar, in your, at least in your cooling options  
21 report you describe the Los Angeles Regional Water  
22 Quality Control Board as being, quote,  
23 "historically opposed to relaxing any treatment  
24 standards," is that correct?

25 MR. SAPUDAR: That's not my testimony,



1 no. I did not write that testimony.

2 MR. ABELSON: Are you confused on who  
3 sponsored that part of the alternatives?

4 MR. MCKINSEY: Yeah.

5 MR. ABELSON: Is that the problem? Can  
6 I have just a moment because I actually do not --

7 HEARING OFFICER SHEAN: Sure, why don't  
8 you ask your prep team.

9 (Pause.)

10 MR. ABELSON: Okay, Officer Shean and  
11 Commissioners, in response to Mr. McKinsey's  
12 question, and thank you all for the courtesy of a  
13 few moments.

14 I've consulted with both Mr. Sapudar,  
15 who was involved extensively in addressing the  
16 issues in staff's written direct testimony as it  
17 pertains to this topic. He had no direct role in  
18 the alternative study that was part of the FSA.

19 And, Mr. Schoonmaker, who was involved  
20 in both the alternative supplement -- appendix,  
21 excuse me, and as well as the written testimony.

22 Neither of those individuals is actually  
23 the sponsor of that specific sentence. There are  
24 several other people that we did identify, John,  
25 as part of the alternatives, and I'd be happy, if

1       it's important to you, to try to arrange to make  
2       them available later on for that question.

3               MR. MCKINSEY: I'm satisfied just  
4       establishing that your testimony, your written  
5       testimony indicates that they're historically  
6       opposed to granting a variance. And so I think  
7       I've accomplished that, so --

8               HEARING OFFICER SHEAN: He already got  
9       what he wanted. I think he's going to stop there.

10              (Laughter.)

11              MR. ABELSON: He doesn't want to hear  
12       the rest of the story.

13              HEARING OFFICER SHEAN: All right, and,  
14       Ms. Murphy has a question.

15              MS. MURPHY: Yeah, one question; I'm not  
16       sure who it's for.

17                       REDIRECT EXAMINATION

18       BY MS. MURPHY:

19              Q       It was my understanding awhile ago that  
20       one of the ecological problems with using Hyperion  
21       water was that they had planned to use that water  
22       in the future for irrigation purposes, tertiary  
23       treatment and irrigation.

24                      And that in California water's going to  
25       be the problem, not energy. You folks will all

1 take care of energy, even though we gadflies try  
2 to stop you -- but, and so therefore I'm wondering  
3 why and has anyone considered the possibility of  
4 tertiary treatment of all of this water so that it  
5 can be used for irrigation and using it for  
6 cooling.

7 I'm sure there are all kinds of  
8 technical problems with it, but the results would  
9 give all kinds of benefits. That is to say no  
10 thermal outflow at all. Water that California  
11 needs, we could use it for -- and I think it's a  
12 continuation of what was already planned, which is  
13 that they were going to use this water for  
14 irrigation eventually.

15 And I understand, too, that it's not  
16 something applicant be ordered to do, but because  
17 we're talking about using Hyperion, we're working  
18 with different organizations here. So, is there a  
19 problem? Has anyone considered tertiary treatment  
20 of all this water, and then using it twice? Once  
21 for irrigation and once for cooling?

22 HEARING OFFICER SHEAN: Are you capable  
23 of answering that question?

24 MR. ABELSON: That's beyond the scope of  
25 anything we've addressed in our studies.

1           MR. FLEISCHLI: I wish Dr. Gold were  
2 here because I think he could answer that in terms  
3 of, at least it's consistency with the integrated  
4 resource plan for the City of Los Angeles.  
5 Certainly the environmental community does very  
6 much support tertiary treated reclamation reuse  
7 for multiple purposes.

8           MR. MCKINSEY: I'd suggest that we have  
9 somebody, I think, in the audience from West Basin  
10 Municipal Water District and from Hyperion  
11 Treatment Plant. And if you wanted, you could  
12 wait till later when you talk to them, or you  
13 could ask them to answer that question, or address  
14 that.

15          HEARING OFFICER SHEAN: Okay, and maybe  
16 they can identify themselves with a hand. And if  
17 we take a lunch break maybe, Ms. Murphy, if you'd  
18 like to, you can talk to them and we can get it  
19 also here on our record.

20          All right.

21          MR. MCKINSEY: My actual first witness I  
22 was interested in for biology purposes was Mr.  
23 Luster.

24          HEARING OFFICER SHEAN: Can we have  
25 whoever is on the phone identify themselves,

1 please?

2 MR. PETERSON: Lee Peterson, Daily  
3 Breeze.

4 HEARING OFFICER SHEAN: Thank you.

5 DR. RAIMONDI: Peter Raimondi.

6 MR. ABELSON: Pete Raimondi, still  
7 there. Still awake.

8 (Laughter.)

9 HEARING OFFICER SHEAN: Mr. Luster, if  
10 you wish you may be seated, or you can stay there  
11 at the podium, whatever you prefer.

12 MR. LUSTER: Any preference?

13 HEARING OFFICER SHEAN: It's up to you.

14 MR. LUSTER: I'm fine here.

15 CROSS-EXAMINATION

16 BY MR. McKINSEY:

17 Q Mr. Luster, how long have you been  
18 employed at the California Coastal Commission?

19 MR. LUSTER: Just over two years.

20 MR. McKINSEY: In your testimony  
21 yesterday you had indicated that you had 18 years  
22 experience with the Coastal Act issues and  
23 matters?

24 MR. LUSTER: Actually 15 years of  
25 coastal zone and coastal issues, not entirely with

1 the Coastal Act.

2 MR. MCKINSEY: Isn't the majority of  
3 your experience associated with laws other than  
4 laws of California?

5 MR. LUSTER: Correct. The majority of  
6 that time was in Washington State.

7 MR. MCKINSEY: I'd like to ask you  
8 questions about -- this is more of probably a  
9 question to the opposing side, but I'd like to ask  
10 him questions about the California Coastal Act and  
11 how it's been applied in this situation, and how  
12 it should apply.

13 And I'm doing that simply because he was  
14 offered as an expert on the California Coastal  
15 Act, and particularly what proceedings they have  
16 completed, and what the legal effect of those  
17 proceedings were.

18 MR. ABELSON: Let me respond to that by  
19 saying that he was not offered as an expert on  
20 anything. He was offered as a fact witness for  
21 what the California Coastal Commission has done in  
22 this case.

23 With that having been said, Mr. Luster  
24 is with an independent agency. He is here. And  
25 if he is comfortable answering your questions I

1 have no objection to him answering those as long  
2 as it isn't represented that we offered him as an  
3 expert witness. We did not.

4 MR. FLEISCHLI: I would also like to add  
5 that as long as he's not trying to summarize what  
6 the law is, the law speaks for itself. I think we  
7 have been clear on that objection throughout.

8 HEARING OFFICER SHEAN: Yes. Mr.  
9 Luster, we already know you're not a lawyer. And  
10 you probably thank God for that every day.

11 (Laughter.)

12 UNIDENTIFIED SPEAKER: I would.

13 (Laughter.)

14 HEARING OFFICER SHEAN: And so to the  
15 extent if you're going to answer a question with  
16 respect to the application of either statutory or  
17 regulatory provision applicable to the Coastal  
18 Commission, it is to be based upon your experience  
19 in doing that, as opposed to offering it as if you  
20 were a lawyer. I think you understand that.

21 MR. LUSTER: Yes. And actually my role  
22 is even further limited. I'm here to provide the  
23 letters that the Coastal Commission sent to the  
24 Energy Commission and answer any questions  
25 specifically about those.

1 HEARING OFFICER SHEAN: Okay.

2 BY MR. McKINSEY:

3 Q In the letters that the Coastal  
4 Commission has sent they refer to findings having  
5 been made by the California Coastal Commission.  
6 Can you describe what is meant by that?

7 MR. LUSTER: The findings are made --  
8 let me back up -- in both the Warren Alquist Act  
9 and the California Coastal Act for energy projects  
10 in the coastal zone, the Coastal Commission has a  
11 role in the Energy Commission's review.

12 Basically the Coastal Commission is to  
13 provide the Energy Commission findings and  
14 specific provisions as to whether the proposed  
15 project will meet the applicable policies of the  
16 Coastal Act, and what measures may be necessary  
17 for that project to meet the Coastal Act.

18 And so the findings refer to that  
19 requirement of Warren Alquist and Coastal Act.

20 MR. McKINSEY: So I think I understood  
21 that you indicated, is this correct, that the  
22 finding refers to a specific project?

23 MR. LUSTER: Yes, it's done each review  
24 of a proposed project, under Energy Commission  
25 provisions. The Coastal Act weighs in on that



1 project individually.

2 MR. McKINSEY: So the findings in your  
3 letters are not broad findings applicable to all  
4 citizens of the State of California?

5 MR. LUSTER: The findings apply to the  
6 Coastal Commission's review of this particular  
7 project.

8 MR. McKINSEY: Yesterday you were asked  
9 questions from Mr. Abelson regarding the notice  
10 that you had provided for those finding  
11 determinations, do you recall that testimony?

12 MR. LUSTER: Yes.

13 MR. McKINSEY: Can you describe  
14 specifically how you noticed the meetings whereby  
15 you made findings with regard to the project?

16 MR. LUSTER: There are two different  
17 forms of notice. One is a -- the meetings, the  
18 hearings are posted on the Coastal Commission's  
19 website with an agenda and a brief description of  
20 the various proposals that the Commission will be  
21 considering.

22 In many cases the notice includes the  
23 staff report that was written for a particular  
24 project. And those reports are available online  
25 if anyone so requests them.

1           In addition, the Coastal Commission  
2 maintains a standard mailing list, several hundred  
3 people or individuals or organizations that get  
4 notice of each month's hearing. And, in addition,  
5 for each particular project there may be specific  
6 individuals or organizations that receive notice  
7 of the hearing where their proposed project is  
8 coming up.

9           MR. MCKINSEY: Was a notice delivered to  
10 El Segundo Power II LLC regarding the hearings  
11 whereby you made findings on this project?

12          MR. LUSTER: I believe it was, yes.

13          MR. MCKINSEY: I'm going to ask, are you  
14 certain of that?

15          MR. LUSTER: Well, before I left I did  
16 bring down a copy of the mailing list from the  
17 November hearing for this particular project. I'd  
18 be happy to introduce that into the record if  
19 you'd like. It does include -- I know your name  
20 is on it; Mr. Cabe's name is on it. It's  
21 generally the service list from the Energy  
22 Commission process.

23          MR. MCKINSEY: On those letters do they  
24 refer to this proceeding?

25          MR. LUSTER: By this proceeding you

1 mean?

2 MR. MCKINSEY: Meaning this AFC  
3 proceeding before the California Energy  
4 Commission.

5 MR. ABELSON: Objection for clarity  
6 purposes, when you said on those letters --

7 MR. MCKINSEY: The letters that he's  
8 referring to that the California Coastal  
9 Commission has sent out. The question is do they  
10 refer to this proceeding, this AFC proceeding.

11 MR. LUSTER: What the Coastal Commission  
12 sends out is the meeting agenda showing all the  
13 projects that will be part of the hearing.

14 For this particular project there was a  
15 brief description of the proposal. And I believe  
16 that description may have said something to the  
17 effect of the Coastal Commission's review under  
18 the Energy Commission's AFC process.

19 I'm not certain of that, but I believe  
20 that was the description.

21 MR. MCKINSEY: And is it your testimony  
22 that those documents, that noticing of meeting,  
23 were sent to El Segundo Power II LLC?

24 MR. LUSTER: If El Segundo Power II LLC  
25 was on the service list of the California Energy

1 Commission then it was on our mailing list, yes.

2 MR. McKINSEY: The mailing list for the  
3 meeting notices?

4 MR. LUSTER: For the California Coastal  
5 Commission meeting notice. If it would simplify I  
6 can provide a copy of that document.

7 MR. McKINSEY: Well, the other document  
8 you refer to is a letter, correct?

9 MR. LUSTER: We're talking about two  
10 separate documents. One, --

11 MR. McKINSEY: Right.

12 MR. LUSTER: -- I have a document that  
13 is the mailing list we used for the November  
14 hearing. The document that was sent as notice of  
15 that hearing was a hearing agenda, which is a  
16 small pamphlet the Coastal Commission puts  
17 together every month. That document was sent to  
18 the names on the mailing list.

19 MR. McKINSEY: Are you familiar with  
20 local coastal plans?

21 MR. LUSTER: To some degree, yes.

22 MR. McKINSEY: Are you aware that the  
23 City of El Segundo has a local coastal plan?

24 MR. LUSTER: Yes, I am.

25 MR. McKINSEY: Did the California

1 Coastal Commission consider the local coastal plan  
2 when evaluating this project?

3 MR. LUSTER: To some degree, yes.

4 MR. McKINSEY: Is it correct that you've  
5 indicated that there's an obligation to restore or  
6 enhance, based on section 30231 of the California  
7 Coastal Act?

8 MR. LUSTER: The full phrase is:  
9 maintain, enhance, and where feasible, restore.  
10 Yes.

11 MR. McKINSEY: And are you aware that  
12 the local coastal plan specifically provides an  
13 analysis of the degree to which projects comply  
14 with that section?

15 MR. LUSTER: I'm not specifically aware  
16 of that right now, no.

17 MR. McKINSEY: I've got the local  
18 coastal plan. I want to ask him about a  
19 particular phrase in it. I've got some extra  
20 copies of it. There's a clause in here that's  
21 very relevant to this proceeding.

22 MR. ABELSON: I think I'd object at this  
23 point for two reasons. Number one, there's  
24 nothing in the Coastal Commission letter that  
25 refers to this in any way. There was nothing in

1 Mr. Luster's testimony. He's indicated that he's  
2 not particularly familiar with the local plan, and  
3 he's certainly, as we've all agreed, not a lawyer.

4 So, it seems to me that we're really  
5 outside the scope of anything he's testified.

6 MR. MCKINSEY: I think he's testified  
7 that there's an obligation to this section to  
8 restore or enhance that's being referred to by all  
9 parties as the particular allegation implies, and  
10 he's the foundation for that promulgation. And  
11 he's here before us as the Coastal Commission, and  
12 he's implying there's an obligation that this  
13 project must provide a restoration or an  
14 enhancement under the law.

15 And I want to ask him the foundation for  
16 that.

17 HEARING OFFICER SHEAN: Okay, --

18 MR. FLEISCHLI: I'd like to object, too,  
19 because, you know, whether or not he's testifying,  
20 he's provided a letter. The Coastal Commission  
21 took an action. It seems to me that the entire  
22 administrative record from that action would need  
23 to be admitted into this matter to insure what the  
24 Coastal Commission did and the full representation  
25 of what it did was presented.

1 HEARING OFFICER SHEAN: All right, --

2 MR. McKINSEY: I just want to ask him if  
3 they considered this particular provision.

4 HEARING OFFICER SHEAN: -- I think on  
5 the whole we'll sustain the objections. He needs  
6 to be either shown or have the matter read to him  
7 as to his familiarity with it. And then you have  
8 a foundation to ask the question of whether it was  
9 considered or presented, I would believe, in the  
10 deliberations for that meeting.

11 Okay, so the foundational question at  
12 this point?

13 MR. McKINSEY: I'm referring to page 6  
14 of the local coastal plan.

15 MR. ABELSON: This is the one dated  
16 1980?

17 MR. McKINSEY: Correct.

18 MR. ABELSON: I'm sorry, John, say  
19 again, page 10?

20 HEARING OFFICER SHEAN: Page 6.

21 MR. ABELSON: Six.

22 MR. McKINSEY: The section titled,  
23 section D, water and marine resources, appears on  
24 that page. Do you see the section I'm referring  
25 to, Mr. Luster?

1 MR. LUSTER: Correct.

2 MR. McKINSEY: And it begins by a  
3 recitation of section 30231?

4 MR. LUSTER: Correct.

5 MR. McKINSEY: Under note 3 there's an  
6 evaluation of the local coastal plan's compliance  
7 with this section. Do you see the evaluation  
8 section?

9 MR. LUSTER: I do.

10 MR. McKINSEY: It reads: Existing state  
11 and federal regulations addressing water and  
12 marine resources in El Segundo are adequate to  
13 meet the objectives and purposes of chapter 3,  
14 section 30231 of the Coastal Act."

15 Did the Coastal Commission consider this  
16 element of the local coastal plan when concluding  
17 that this project did not comply with the  
18 California Coastal Act?

19 MR. LUSTER: I have three comments on  
20 that. First, the El Segundo LCP, the jurisdiction  
21 does not extend into the marine waters in this  
22 instance. The marine waters --

23 UNIDENTIFIED SPEAKER: Can you speak up?  
24 I'm sorry, Mr. Luster, I can't hear.

25 MR. REEDE: I'll fix the microphone.



1           MR. LUSTER: The marine waters offshore  
2 of El Segundo are within a retained jurisdiction  
3 of the Coastal Commission. And so for marine  
4 biological impacts the Commission did not need to  
5 review conformity with the LCP. It just didn't  
6 apply in that situation.

7           Another comment: If it did apply, the  
8 LCP mentions existing state and federal  
9 regulations. Those state and federal regulations  
10 include the California Coastal Act. And so the  
11 Coastal Commission's action in determining  
12 conformity with the Act, I assume, would be a part  
13 of that evaluation.

14           Further, I don't think this is the  
15 appropriate forum to address what the Commission  
16 did or did not review. The public hearing that  
17 the Coastal Commission held in November would have  
18 been the appropriate forum.

19           At this point the Energy Commission has  
20 the Coastal Commission's findings and specific  
21 recommendations. And their charge is to either  
22 accept them or find them infeasible or that they  
23 would cause greater adverse environmental impacts.

24           MR. McKINSEY: And I just have one  
25 follow up question. Are you suggesting that

1 section 3, by referring to other state and federal  
2 laws and regulations, satisfies section 30231,  
3 includes section 30231?

4 MR. FLEISCHLI: Calls for a legal  
5 conclusion; beyond the scope.

6 MR. PERKINS: Mr. Hearing Officer, if  
7 that's going to be a --

8 HEARING OFFICER SHEAN: Okay.

9 MR. PERKINS: -- objection for the  
10 record --

11 HEARING OFFICER SHEAN: Mr. Perkins, why  
12 don't you come up and make that in a microphone so  
13 we can --

14 MR. PERKINS: Well, since I have a  
15 microphone, Mr. McKinsey has access to that  
16 record. He can find out what actually was  
17 considered rather than asking this witness what  
18 this witness' understanding of the law is, when  
19 this witness is not the person who made the  
20 decision, --

21 HEARING OFFICER SHEAN: Sure.

22 MR. PERKINS: -- but is only the  
23 representative.

24 HEARING OFFICER SHEAN: Okay, why don't  
25 you state your objection --

1           MR. PERKINS: The specific objections  
2           are beyond the scope of direct examination; beyond  
3           the scope for which he was called; he doesn't have  
4           a lawyer here, he's a party, himself. And it  
5           seems to me somebody ought to keep him from being  
6           badgered.

7           MR. McKINSEY: I would --

8           MR. PERKINS: Calls for a legal  
9           conclusion.

10          MR. McKINSEY: I would make one comment  
11          to that, and that is that I'm referring  
12          specifically to his testimony. He just gave  
13          testimony indicating a position on that. And I'd  
14          asked him what he meant by it.

15          MR. LUSTER: My testimony --

16          HEARING OFFICER SHEAN: Okay. If that's  
17          the question we'll allow that question.

18          MR. LUSTER: My testimony was that that  
19          section of the LCP did not apply. But if it did,  
20          certain conclusions -- but since it doesn't apply,  
21          that's my answer.

22          MR. McKINSEY: Thank you. There's one  
23          other page I want to ask you whether or not this  
24          was considered, and it's on page 21. The section  
25          labeled energy. There's a -- was that section

1 considered?

2 MR. LUSTER: Again, the Coastal  
3 Commission's findings were based on the provisions  
4 of the Coastal Act that it reviewed, and in this  
5 case whether or not the LCP was reviewed as part  
6 of that properly should have been brought up at  
7 the November hearing.

8 the Coastal Commission is determining  
9 what measures would be necessary to allow onsite  
10 expansion or intensification of this particular  
11 power plant.

12 MR. MCKINSEY: Thank you. That's all I  
13 had, thank you, Mr. Luster.

14 MR. LUSTER: Okay.

15 MR. ABELSON: Some redirect briefly, Mr.  
16 Shean, just --

17 HEARING OFFICER SHEAN: Maybe before you  
18 do that let me just ask him, so that you might  
19 want to cover it in the question here.

20 Does the California Coastal Commission  
21 routinely participate in the NPDES permit hearings  
22 by the L.A. County Regional Quality Control Board?

23 MR. LUSTER: I know the Commission has  
24 been involved in some of those. They are  
25 particularly involved in the ones that occur

1 outside the three-mile limit in federal waters.

2 It's a slightly different role; it's not  
3 a permitting role. It's the federal consistency  
4 role that the Commission has.

5 But as far as NPDES permits for  
6 discharges in state waters, it varies. It's based  
7 on the importance or concern about particular  
8 projects.

9 HEARING OFFICER SHEAN: Do you know, of  
10 your own information, whether or not the Coastal  
11 Commission participated in the 2000 NPDES renewal  
12 proceedings for the El Segundo project?

13 MR. LUSTER: I'm not aware one way or  
14 the other on that one.

15 PRESIDING MEMBER PERNELL: Was the City  
16 of El Segundo on your mailing list for notice?

17 MR. LUSTER: I believe so; I believe  
18 they're on the Energy Commission's service list,  
19 and so they would have received notice.

20 PRESIDING MEMBER PERNELL: So you notice  
21 everyone that was on the Energy Commission's  
22 service list?

23 MR. LUSTER: That's my understanding,  
24 yes. Would it help to introduce that document  
25 or --

1           PRESIDING MEMBER PERNELL: Well, --

2           MR. LUSTER: It's a mailing list.

3           PRESIDING MEMBER PERNELL: Is it a  
4 certified list?

5           MR. LUSTER: No. I got it from the  
6 official file that we keep in the office, and made  
7 a copy of it before I came down here.

8           MR. ABELSON: Oh, you mean is the copy  
9 certified. That's, I think, what he's  
10 understanding the question to be.

11          PRESIDING MEMBER PERNELL: Well, is it a  
12 certified notice, I guess is my question.

13          MR. LUSTER: I don't understand what you  
14 mean by certified.

15          PRESIDING MEMBER PERNELL: So that it --  
16 I guess what I'm trying to get to, if you have a  
17 list, a mailing list, and someone is on it, but  
18 they say they didn't receive their mail, then I'm  
19 asking is the mailing list that you send out a  
20 certified list, so that we'll know that someone in  
21 the facility received it.

22          MR. LUSTER: I'm not certain of that.

23          PRESIDING MEMBER PERNELL: Okay, that's  
24 fine.

25          MR. ABELSON: If I could approach Mr.

1 Luster real quickly, foundation, I have a document  
2 I want to show him, and then I'd like to show it  
3 to the full Committee.

4 HEARING OFFICER SHEAN: May I ask the  
5 applicant, while Mr. Abelson is doing that, is  
6 there a factual issue with regard to what notice  
7 either El Segundo Power II or others had that --

8 MR. MCKINSEY: Yeah, it's a factual and  
9 a legal issue. The factual issue is that we did  
10 not receive notice of those hearings.

11 VOIR DIRE

12 BY MR. ABELSON:

13 Q Mr. Luster, I have in my hand a small  
14 pamphlet, doesn't have a number of pages -- it  
15 does actually have -- it's about 19 pages long.  
16 And it has, as a label, among other things on the  
17 front page, the word California Coastal Commission  
18 Meeting Notice for the dates of November 5th  
19 through the 8th.

20 I'm wondering, number one, if you  
21 recognize this document; and number two, if you  
22 could read the main heading and entries that  
23 appear on page 11 of that document.

24 MR. LUSTER: Okay. Yes, this is the  
25 meeting notice for the November 2002 hearing. And

1 the notice for this particular project reads, it's  
2 titled: El Segundo Power Plant Status. Status  
3 report and possible action by Commission under  
4 section 30413(d) of the Coastal Act. Application  
5 by El Segundo Power II LLC for certification by  
6 California Energy Commission to upgrade two of  
7 four generating units at El Segundo Power Plant in  
8 El Segundo to provide 280 additional megawatts of  
9 electrical generation."

10 MR. ABELSON: With permission I'd like  
11 to hand this to the Committee to at least look at  
12 so they're aware of the document we're talking  
13 about.

14 Mr. Luster, to the best of your  
15 knowledge is the document I just showed you and  
16 which the Committee is now looking at, appear to  
17 be the correct, formal notice that the California  
18 Coastal Commission routinely puts out as business  
19 meetings, and particularly with regard to the  
20 dates in question?

21 MR. LUSTER: Yes, it does.

22 MR. ABELSON: With regard to the mailing  
23 list I'd simply state for the record that if Mr.  
24 Luster has a copy we're more than happy to have it  
25 submitted into the record.



1 MR. McKINSEY: I got one --

2 HEARING OFFICER SHEAN: You mean the  
3 list, itself, or --

4 MR. McKINSEY: No, I --

5 HEARING OFFICER SHEAN: -- his testimony  
6 about the list?

7 CROSS-EXAMINATION - Resumed

8 BY MR. McKINSEY:

9 Q I'd like to ask one question about that  
10 and that's it. About what you've just indicated,  
11 this meeting. But I don't have any objections to  
12 that or --

13 And that is, what were the dates of this  
14 meeting?

15 MR. LUSTER: It's shown on that agenda,  
16 I believe it's November 4th through 7th.

17 UNIDENTIFIED SPEAKER: 5th through 8th.

18 MR. LUSTER: 5th through 8th, thank you.

19 MR. McKINSEY: And were you aware that  
20 there was also an Energy Commission meeting on  
21 this project on November 7th?

22 MR. LUSTER: I was probably aware of  
23 that, I don't recall at the moment.

24 MR. McKINSEY: You were on the phone  
25 indicating at the November 7th workshop that the

1 Coastal Commission had just made a finding?

2 MR. LUSTER: Could you repeat the  
3 question?

4 MR. McKINSEY: Do you recall being on  
5 the telephone at that workshop, the Energy  
6 Commission workshop, calling from the Coastal  
7 Commission indicating that the Coastal Commission  
8 had just made a finding?

9 MR. LUSTER: I don't recall that  
10 offhand, but --

11 MR. McKINSEY: That's it. I have no  
12 further questions, thank you.

13 HEARING OFFICER SHEAN: Anything more?  
14 All right.

15 MR. FLEISCHLI: I'd like to ask one.

16 CROSS-EXAMINATION

17 BY MR. FLEISCHLI:

18 Q If someone were to have a problem or  
19 allege inadequacy of notice, the Coastal  
20 Commission does have, either through the Coastal  
21 Commission or through the court system, a legal  
22 process in order to challenge that, isn't that  
23 correct?

24 MR. LUSTER: That's correct.

25 MR. FLEISCHLI: In terms of the most

1 recent question from Mr. McKinsey, are you aware  
2 how many employees NRG has, or how many employees  
3 Mr. McKinsey's lawfirm has in order to cover other  
4 matters?

5 MR. LUSTER: I'm not aware of either.

6 MR. FLEISCHLI: Thank you.

7 HEARING OFFICER SHEAN: All right.

8 MR. FLEISCHLI: Thanks.

9 HEARING OFFICER SHEAN: Thank you, Mr.  
10 Luster.

11 CROSS-EXAMINATION

12 BY MR. MCKINSEY:

13 Q I had -- this question's directed to Dr.  
14 Davis. Yesterday do you recall that you testified  
15 regarding the status of cooling system number one  
16 at El Segundo Generating Station?

17 DR. DAVIS: I don't recall; what did I  
18 say, could you remind me?

19 MR. MCKINSEY: I think you indicated  
20 that it's no longer operational.

21 DR. DAVIS: Oh, that's correct, in  
22 regard to the air permit. What I -- yes, that's  
23 correct, that it can no longer operate because it  
24 doesn't have a valid air permit anymore.

25 MR. MCKINSEY: Do you have any personal

1 knowledge of the current operational status of the  
2 cooling system number one at El Segundo Generating  
3 Station?

4 DR. DAVIS: I don't.

5 MR. McKINSEY: Do you content that the  
6 NPDES permit no longer allows the operation of the  
7 cooling system at El Segundo Generating Station?

8 DR. DAVIS: Well, my understanding is it  
9 no longer allows the operation of the units;  
10 therefore, there would be no need for cooling  
11 water to cool those units.

12 I don't think it applies to whether the  
13 intake one can intake water or not.

14 MR. FLEISCHLI: Can I ask a clarifying  
15 question, because you were talking about air  
16 permits for a minute, and then you switched to  
17 NPDES, I'm not sure it was clear --

18 DR. DAVIS: Oh, oh, I see --

19 MR. FLEISCHLI: -- that he was talking  
20 about water instead of air all of a sudden.

21 HEARING OFFICER SHEAN: Yes, the answer  
22 was nonresponsive. It was does the NPDES permit.

23 DR. DAVIS: Oh, okay, yes, my  
24 understanding is -- I'm sorry, I misunderstood  
25 your question -- my understanding is that they do

1 have a valid NPDES permit to intake and discharge  
2 water from unit one.

3 MR. MCKINSEY: And what does the NPDES  
4 permit the maximum flow rate to be through intake  
5 number one?

6 DR. DAVIS: It's 207 million gallons per  
7 day.

8 MR. MCKINSEY: Are you aware of any  
9 physical or mechanical barriers that prevent the  
10 operation of that system at 207 millions gallons  
11 per day?

12 DR. DAVIS: Not that I'm aware of.

13 MR. MCKINSEY: Yesterday you also  
14 testified about the new velocity limits that are  
15 applicable for new intake structures?

16 DR. DAVIS: That's correct.

17 MR. MCKINSEY: And I think your  
18 testimony, isn't that correct that it indicated  
19 that the velocities in the existing intake system  
20 exceed that limit, correct?

21 DR. DAVIS: That's my understanding,  
22 yes.

23 MR. MCKINSEY: And isn't it true that  
24 velocity essentially has only an effect on  
25 impingement and not on entrainment?

1 DR. DAVIS: I would think that it  
2 would -- it certainly has an effect on  
3 impingement. I believe it would -- could possibly  
4 have an effect on entrainment, too. At least --  
5 okay, it doesn't have a direct effect on  
6 entrainment, that's volume of water. It may have  
7 some effect on, you know, survival of the  
8 entrained organisms.

9 MR. McKINSEY: Most of the entrained  
10 organisms are assumed to reach the forebay before  
11 they're, I don't know if the right term may be  
12 terminated, when we assume that they lose their  
13 life as they go through the system. But they're  
14 assumed to reach the forebay intact and alive,  
15 correct?

16 DR. DAVIS: I make no such assumption.  
17 I don't know that -- I don't know whether that's  
18 true or not. You're talking about entrained  
19 organisms or impinged organisms?

20 MR. McKINSEY: Entrained organisms.

21 DR. DAVIS: I don't know that to be  
22 true.

23 MR. McKINSEY: Was it the intent of your  
24 testimony to imply that by virtue of the  
25 velocities that we currently have in the system,

1       that those are adding to the potential  
2       significance of the entrainment effects of the  
3       intake system?

4               DR. DAVIS:  No, it was my intention to  
5       describe the system.  This was -- that part of my  
6       testimony was intended to basically set the scene  
7       to provide a description of what the intake is  
8       like and what the physical features of the intake  
9       are.

10              It certainly has a very large impact on  
11       impingement because once the fish go into that  
12       pipe there's no way they're coming back out.

13              MR. MCKINSEY:  My next question has to  
14       do with impingement.  You were asked yesterday  
15       regarding whether you felt that the impingement  
16       effects of intake number one are significant or  
17       not.

18              And I would like to re-ask that question  
19       because I don't think it was clear.  You ended up  
20       correcting a sentence in the final staff  
21       assessment.  Do you have an opinion on the  
22       significance of the impingement effects of intake  
23       number one at El Segundo Generating Station?

24              MR. ABELSON:  Objection only for  
25       clarification purposes.  When you ask the

1 question, John, the way you're doing it are you  
2 talking about direct impacts stand alone, or  
3 cumulative impacts?

4 MR. McKINSEY: I'm referring  
5 specifically to only the impingement effects at El  
6 Segundo Generating Station.

7 DR. DAVIS: Okay, if you're referring to  
8 the direct impingement effects of El Segundo  
9 alone, in other words if this was the only thing  
10 that was happening to the fish in Santa Monica  
11 Bay, it would be my opinion that the impingement  
12 effects alone are probably not significant.

13 MR. McKINSEY: You think that they could  
14 even conceivably be significant alone?

15 DR. DAVIS: Conceivably they could be  
16 significant. I mean if for some reason some  
17 organisms who were -- which were very rare were  
18 being impinged. I mean conceivably a steelhead  
19 trout could be impinged.

20 So conceivably they could be, but based  
21 on the information that I've reviewed it's my  
22 opinion that taken alone they're not.

23 MR. McKINSEY: Do you agree that there  
24 is a significant and accurate amount of  
25 information about the impingement effects of the



1 intake structure?

2 DR. DAVIS: Is there an accurate amount  
3 of -- is there a sufficient and accurate amount of  
4 information about the impingement effects of the  
5 structure? Yes, I would say that there probably  
6 was.

7 MR. McKINSEY: And are you aware in any  
8 of that information that suggests such a  
9 circumstance occurs in intake number one at El  
10 Segundo?

11 DR. DAVIS: What circumstance are you  
12 referring to?

13 MR. McKINSEY: Where you referred to  
14 potentially an endangered or threatened species  
15 has been impinged.

16 DR. DAVIS: Actually it's my  
17 understanding, I'm not sure if specifically this  
18 is true of El Segundo, but my understanding is  
19 that at least some of the power plants have  
20 impinged endangered turtles, sea turtles. So I  
21 believe at least historically it has happened.

22 MR. McKINSEY: Thank you. Yesterday,  
23 and I'm addressing this to you, but it's actually  
24 your team, --

25 DR. DAVIS: Okay.

1 MR. McKINSEY: -- your team concluded,  
2 among other issues, that the original 316B study  
3 that allows the current operation of intake number  
4 one is too old to be of legitimate value for  
5 permitting purposes today, correct?

6 DR. DAVIS: That's our opinion.

7 MR. McKINSEY: And speaking only of this  
8 time age criticism of that study, what you're  
9 essentially contending is that a 20-year-old study  
10 is no longer valid, is that correct?

11 DR. DAVIS: I'm not saying that any 20-  
12 year-old study is no longer valid. Are you asking  
13 me a very broad question here, or are you asking  
14 me whether the 20-year study of entrainment at El  
15 Segundo is no longer valid?

16 MR. McKINSEY: I'm asking you the broad  
17 question. Do you contend that just looking at the  
18 age criticism of the study, that by virtue of  
19 being 20 years old it's no longer valid?

20 DR. DAVIS: No, I can't answer that. It  
21 would be a study-by-study. It would depend on the  
22 question you were asking.

23 MR. McKINSEY: So it's quite potential  
24 that a study that is 20- or even older years could  
25 have relevant value in a permitting proceeding?

1 DR. DAVIS: Well, now you've qualified  
2 it. I mean you're asking a question that is so  
3 general that it's almost impossible to answer. I  
4 mean, yes, I'm sure there are situations where 20-  
5 year-old studies would be valid.

6 MR. McKINSEY: Typically how long is a  
7 study good for once it's completed?

8 DR. DAVIS: You're asking such broad  
9 general questions. I can answer specifically  
10 about these entrainment studies. I can't answer  
11 about any study in the world, because, you know,  
12 for any subject, it would depend on what you're  
13 asking.

14 I'd be very glad to reiterate why we  
15 don't think the entrainment studies done 20 years  
16 ago are still valid. Would you like me to repeat  
17 that? I --

18 MR. McKINSEY: No, I think I'm asking  
19 what is essentially a yes or no question, but let  
20 me ask it to you this way. Is there a general  
21 rule that the age of a study eliminates its  
22 scientific validity?

23 DR. DAVIS: No, there's not a general  
24 rule.

25 MR. McKINSEY: You concluded yesterday

1       that there might be a significant impact caused by  
2       intake number one, correct.

3               DR. DAVIS:  There might be, yes.

4               MR. McKINSEY:  When was the last time  
5       that cooling system was modified?

6               DR. DAVIS:  I think when they put the  
7       velocity cap on.  There might be some others, I  
8       don't know.

9               MR. McKINSEY:  And how did you define  
10       significant impact for purposes of reaching that  
11       conclusion?

12              DR. DAVIS:  I defined them significant  
13       impact based on the general CEQA criterion, as  
14       could reduce the diversity or abundance of natural  
15       populations.

16              MR. McKINSEY:  So isn't it correct your  
17       testimony is essentially that the existing  
18       operating system is causing and has been causing a  
19       significant impact on the Santa Monica Bay?

20              DR. DAVIS:  No.  Well, are you asking  
21       cumulative or project-specific?

22              MR. McKINSEY:  I'm asking in reference  
23       to the fact that you indicated that intake number  
24       one could cause a significant impact.

25              DR. DAVIS:  I said -- there's a

1 difference between is causing and could cause.  
2 What we said in our testimony and have repeated  
3 here is that based on the information available to  
4 us, which is impacts of other intakes, and the  
5 decline of fish populations in Santa Monica Bay,  
6 intake one could potentially be having a direct  
7 significant impact. We need a study to determine  
8 that.

9 MR. McKINSEY: And my question was that  
10 you didn't answer, was how did you define  
11 significant impact --

12 DR. DAVIS: I -- I --

13 MR. McKINSEY: -- for reaching --

14 DR. DAVIS: -- I answered --

15 MR. McKINSEY: -- that conclusion?

16 DR. DAVIS: -- I answered it for you. I  
17 told you. Reduce the diversity or abundance of  
18 natural populations.

19 MR. McKINSEY: So do you contend that  
20 intake number one, in its operation at 207 million  
21 gallons a day, could have that effect?

22 DR. DAVIS: It potentially could, yes.

23 MR. McKINSEY: So then you're concluding  
24 that it potentially now has that effect?

25 DR. DAVIS: I'm concluding -- exactly.

1 I'm concluding that potentially now it could be  
2 having that effect. Yes.

3 MR. McKINSEY: And that then it could  
4 potentially have had that effect since the  
5 velocity cap was put on in the '60s, correct?

6 DR. DAVIS: That's correct.

7 MR. McKINSEY: You also referred to  
8 cumulative effects --

9 DR. DAVIS: That's correct.

10 MR. McKINSEY: -- and you reached a  
11 similar conclusion on cumulative effects  
12 indicating that cumulatively the 2.1 billion  
13 gallons of permitted flow in the Santa Monica Bay  
14 could also be having a significant impact,  
15 correct?

16 MR. ABELSON: Objection, and again only  
17 for clarification, John. The term 2.1 billion  
18 gallons, I'm not quite sure whether -- I know I  
19 certainly didn't use that particular term in --

20 DR. DAVIS: That's the total permitted  
21 flow.

22 MR. McKINSEY: It was used.

23 DR. DAVIS: Yes. And cumulatively was  
24 to add the adverse impacts of all of the cooling  
25 water intakes in Santa Monica Bay in the Southern

1 California Bight and the fact that many of the  
2 fishes that are entrained by these power plants  
3 are declining. It's my opinion that El Segundo  
4 intake one is contributing to cumulatively  
5 significant impacts.

6 MR. McKINSEY: And the baseline for that  
7 cumulative significant impact would be 2.1 billion  
8 gallons per year, correct?

9 DR. DAVIS: Well, the baseline for the  
10 significant cumulative impact is you have  
11 declining fish populations, so anything that adds  
12 to the decline of those fish populations, in my  
13 opinion, is a significant cumulative impact.

14 MR. McKINSEY: So you indicate that  
15 anything that could cause a decline in fish  
16 populations would thus be a significant impact?

17 DR. DAVIS: That's correct. I mean, you  
18 know, unless it's de minimis.

19 MR. McKINSEY: And that's your basis for  
20 concluding that there's a cumulative effect?

21 DR. DAVIS: That's correct.

22 MR. McKINSEY: When is the last time  
23 that any intake capacity was added to the Santa  
24 Monica Bay?

25 DR. DAVIS: I guess -- I'm not certain.

1 I don't know, I'd be guessing. But it's been  
2 awhile.

3 MR. McKINSEY: I would offer to you that  
4 it's Scattergood in the mid '60s.

5 DR. DAVIS: Okay.

6 MR. McKINSEY: Would you agree with  
7 that?

8 DR. DAVIS: I don't know. I have no  
9 reason to dispute it.

10 MR. McKINSEY: If you were to accept  
11 that Scattergood was the most recent change to  
12 permitted cooling flow in the Santa Monica Bay,  
13 wouldn't that mean that there has been no change  
14 in permitted cooling in Santa Monica Bay for 37-  
15 odd years, if we took the mid '60s --

16 DR. DAVIS: That's probably true.

17 MR. McKINSEY: And you contend that for  
18 those 37 years there has been, or there's a  
19 significant potential for a significant effect  
20 from that collective permitted cooling flow?

21 DR. DAVIS: Well, the permitted -- the  
22 loss of fishes to the power plant intakes, coupled  
23 with a variety of other things that are affecting  
24 marine populations, including climate shifts,  
25 over-fishing, pollution, --



1 MR. McKINSEY: Are you aware --

2 DR. DAVIS: -- loss of habitat.

3 MR. McKINSEY: Are you aware of any  
4 studies that conclude that the operation of  
5 cooling systems in the Santa Monica Bay are  
6 causing a decline in fish populations of the Santa  
7 Monica Bay?

8 DR. DAVIS: Well, no, there haven't been  
9 any specific studies of that issue since the  
10 original 316B studies in the late '70s.

11 MR. McKINSEY: Isn't it true that there  
12 are studies attributing causes of declines to  
13 other factors, such as pollution?

14 DR. DAVIS: I actually don't believe  
15 that there are any studies that specifically link  
16 declines of fish to pollution. It may very well  
17 be a contributing factor, but I don't think  
18 there's been any specific study that I'm aware of  
19 that has specifically traced the decline in the  
20 fish population to pollution.

21 MR. McKINSEY: And I would ask that  
22 question to the whole panel.

23 DR. DAVIS: Does anybody else --

24 MR. ABELSON: Dr. Raimondi, are you able  
25 to hear these questions?

1 DR. RAIMONDI: Was the question is there  
2 any study that found that pollution can cause fish  
3 decline?

4 MR. ABELSON: We're going to put a  
5 second mike there so that you can speak up, and  
6 then Mr. McKinsey will try to repeat the question  
7 so you get it quite accurately.

8 MR. MCKINSEY: My question -- can you  
9 hear me, Dr. Raimondi?

10 DR. RAIMONDI: Yes.

11 MR. MCKINSEY: My question is, is  
12 anybody on this panel aware of any studies that  
13 attribute, at least partially, a decline in fish  
14 populations from factors other than cooling water,  
15 such as pollution.

16 MR. ABELSON: In Santa Monica Bay, John?

17 MR. MCKINSEY: In Santa Monica Bay.

18 MR. ABELSON: The silence, I take it,  
19 Dr., Raimondi, means that you're not --

20 DR. RAIMONDI: I mean other than perhaps  
21 some estuarine fish, while they're in estuaries,  
22 I'm not aware of any.

23 MR. ABELSON: Dr. Cailliet is about to  
24 speak.

25 DR. CAILLIET: I'm not aware that fish

1 population, abundances, densities have been  
2 demonstrated to have declined due specifically to  
3 pollution. There have been quite a few studies  
4 going back to the early '70s by the Southern  
5 California Coastal Water Research Project showing  
6 tumors and other kinds of detrimental effects on  
7 fish tissues and fish and other organisms, but  
8 they never directly related those to fish  
9 abundances, as far as I know.

10 DR. AMBROSE: I just concur; that's my  
11 understanding, also.

12 MR. McKINSEY: My next question is  
13 addressed to you, Dr. Ambrose. You testified  
14 earlier that Ormond Beach is a different place.  
15 Do you recall that testimony?

16 DR. AMBROSE: I do.

17 MR. McKINSEY: Were you referring to a  
18 comparison between Ormond Beach and El Segundo  
19 Generating Station?

20 DR. AMBROSE: Yes, I was.

21 MR. McKINSEY: Can you describe what you  
22 meant by different?

23 DR. AMBROSE: I mainly meant  
24 geographically different. They're both -- they  
25 both are open coast; the coastlines are different.

1 Ormond Beach is not in the same sort of  
2 (inaudible) as Santa Monica Bay or El Segundo. So  
3 there are some differences, but I mainly just  
4 meant that they are geographically different.

5 MR. McKINSEY: Would you agree that in  
6 many ways the two locations are similar for  
7 biological habitat purposes?

8 MR. ABELSON: Objection, what do you  
9 mean in many ways? Two ways, 12 ways, how many  
10 ways?

11 MR. McKINSEY: In other ways. In other  
12 words, we do agree that in other ways the two  
13 locations are very similar?

14 DR. AMBROSE: I do see some similarities  
15 between those two.

16 MR. McKINSEY: Your testimony, and I'm  
17 referring primarily to your written testimony,  
18 indicates -- or at least I think it suggests that  
19 the written -- that the impingement effects of El  
20 Segundo Power Redevelopment would be significant.  
21 Is that accurate?

22 DR. AMBROSE: -- look at that testimony.  
23 Can you tell me where you're --

24 MR. McKINSEY: Well, let me ask it. Do  
25 you contend that the impingement effects of El

1 Segundo Power Redevelopment would be significant?

2 DR. AMBROSE: I actually don't think  
3 that I -- that's why I was wondering where. I  
4 don't think I made a conclusion about that.

5 MR. MCKINSEY: So you don't have an  
6 opinion on it, is that correct?

7 DR. AMBROSE: I think, I mean I would  
8 agree with Dr. Davis in that there is the  
9 potential for significant impacts.

10 MR. MCKINSEY: And what would be the  
11 basis for that potential?

12 DR. AMBROSE: It's just the magnitude of  
13 the loss of adult fish.

14 MR. MCKINSEY: I recall, and actually I  
15 don't think you -- were you present yesterday  
16 morning during our direct testimony?

17 DR. AMBROSE: Yes, during the --

18 MR. MCKINSEY: We presented a slide, in  
19 particular, and we compared the impingement  
20 losses, documented impingement losses at El  
21 Segundo Generating Station to other types of  
22 removals.

23 DR. AMBROSE: That's right.

24 MR. MCKINSEY: In there we provide  
25 specific numbers. And so my question is do you

1        contend that the rate of impingement, as  
2        documented at El Segundo Generating Station, has a  
3        significant effect, in and of itself, on the Santa  
4        Monica Bay marine biological habitat?

5                MR. FLEISCHLI: I think he's already  
6        answered that. I think he answered that it  
7        potentially could.

8                MR. MCKINSEY: Well, I'm asking  
9        specifically are you inferring -- are you aware of  
10       these numbers and would these numbers constitute a  
11       significant effect?

12               DR. AMBROSE: Yeah, I'm aware of these  
13       numbers. And actually, again, referring to what  
14       Dr. Davis just said, and when I say I was agreeing  
15       with her, she was saying in and of itself, just  
16       that by itself, irrespective of what other impacts  
17       there might be, there could be a significant  
18       impact.

19               MR. MCKINSEY: This is a general  
20       question to the panel. Do you contend that intake  
21       number one at this time should not be allowed to  
22       pump 207 million gallons per day through its  
23       intake structure?

24               MR. ABELSON: I think I would object to  
25       that question because it's beyond the expertise of

1 the panel. They're basically here to testify on  
2 what the concerns are biologically. The law is  
3 what it is about whether or not you would have  
4 significant impacts. So I don't know if it's  
5 limited, is what I'm really saying, going to the  
6 position of the biologists, per se. And it's  
7 really a question of the interface between the law  
8 and the biology.

9 MR. MCKINSEY: I can ask it a little  
10 more specifically.

11 HEARING OFFICER SHEAN: If you, with the  
12 introduction clause on --

13 DR. DAVIS: I could give you an answer  
14 and you may think it's nonresponsive, but it's the  
15 answer that would -- where I stand.

16 We've been asked, as biologists, to do  
17 an analysis under CEQA of what the impacts of the  
18 proposed project are. And our conclusions were  
19 that -- is that we can't tell because we don't --  
20 we can't tell because we don't have enough  
21 information. We're concerned that there may be  
22 significant impacts.

23 In terms of, like Mr. Abelson said, in  
24 terms of making a broader based decision, you  
25 know, should they not pump 207 million gallons a

1 day, that's not our job as biologists.

2 As a biologist do I think that the fish  
3 in Santa Monica Bay would be better off if they  
4 didn't. I do. But obviously there are other  
5 considerations here that need to be made, you  
6 know, weighing all of the issues.

7 We're only here as biologists to  
8 basically submit our opinions on biological  
9 effects.

10 Anybody else want to add anything?

11 DR. FOSTER: I would agree, but I also  
12 want to point out that using your table here, you  
13 list 2 million -- the sport fishery removes 2  
14 million fish every 14 years. That's according to  
15 my calculations, 1,428,571 fish in ten years.

16 You then state that your impingement  
17 alone removes 102,000 fish in ten years. That's  
18 actually 7 percent of the sport fish take. And  
19 that's one power plant.

20 MR. MCKINSEY: I don't know if you  
21 answered the question that I asked. Does anybody  
22 else have an answer to that question on the panel?  
23 Okay, take silence as no?

24 My next and final question is for Mr.  
25 York. Mr. York, yesterday you indicated that



1       there was a Huntington Beach entrainment study  
2       that was ordered as part of the decision in the  
3       Huntington Beach Power Plant case, correct?

4               MR. YORK:  That's correct.

5               MR. McKINSEY:  Is it a 316B study?

6               MR. YORK:  It's a 316B-like study.

7               MR. McKINSEY:  So is it certified to  
8       comply with section 316B of the Clean Water Act?

9               MR. YORK:  I don't know.

10              MR. McKINSEY:  Are you aware whether or  
11       not the Los Angeles Regional Water Quality Control  
12       Board is approving the protocol for that study?

13              DR. DAVIS:  Wrong water board; it's the  
14       Santa Ana Regional Water Quality Control Board.

15              MR. McKINSEY:  Santa Ana Regional Water  
16       Quality Control Board.

17              MR. YORK:  We have a small army of  
18       people who are working on the study plan,  
19       approving it and implementing the study.  And we  
20       have a representative from the Water Board on that  
21       panel.

22              MR. McKINSEY:  When was Huntington Beach  
23       approved?

24              MR. YORK:  2001.

25              MR. McKINSEY:  Would you agree that it's

1 May of 2001?

2 MR. YORK: Yes.

3 UNIDENTIFIED SPEAKER: Well, the Hearing  
4 Officer did it.

5 MR. McKINSEY: Has the entrainment study  
6 commenced yet?

7 MR. YORK: No, it has not.

8 MR. McKINSEY: You indicated yesterday  
9 that an entrainment study, if it were ordered as  
10 part of this decision, could be completed in about  
11 a year and a half from the decision time, correct?

12 MR. YORK: Yes, that's correct.

13 MR. McKINSEY: And yet isn't it the case  
14 that in Huntington Beach in what is almost two  
15 years, the entrainment study has not even  
16 commenced yet?

17 MR. YORK: That's correct.

18 MR. McKINSEY: Are you aware of whether  
19 or not the protocol for that study has even been  
20 agreed upon yet?

21 MR. YORK: No, we've very close to  
22 approving the study plan and the budget.

23 MR. McKINSEY: And so at this point,  
24 from the time that the project was permitted,  
25 isn't it true that it's going to be on the order

1 of three or four years before the results of that  
2 study are available?

3 MR. YORK: Yeah, that's not our fault.  
4 The time was extended because the -- as the way  
5 the condition is written the study needed to begin  
6 within so many days of the project becoming  
7 commercially operational. And that's the way the  
8 conditions were written at that time because it  
9 was expected the project would become commercial  
10 operation by the end of July, early August of that  
11 year.

12 There were a lot of technical problems  
13 and other things that were out of everybody's  
14 control, including the project owner. And that is  
15 the things that primarily extended the time for  
16 when this study will actually begin.

17 It is expected that that study will  
18 begin this spring 2003.

19 MR. MCKINSEY: That's it, thank you.

20 MR. ABELSON: Redirect.

21 HEARING OFFICER SHEAN: Stand by.

22 PRESIDING MEMBER PERNELL: What was the  
23 mitigation amount for the study?

24 MR. YORK: For that case there was no  
25 mitigation amount.

1           PRESIDING MEMBER PERNELL: The applicant  
2       didn't --

3           MR. YORK: Actually for the study. The  
4       mitigation for the paying for the study was \$1.5  
5       million. And it was provided to a third party who  
6       is managing the funds.

7           PRESIDING MEMBER PERNELL: So the  
8       applicant provided 1.5?

9           MR. YORK: Correct. There was no  
10      calculation of what the -- if there are  
11      significant impacts that are found, there has not  
12      been provided, in that case, a trust account  
13      that's holding money that will be used for offsite  
14      mitigation if that's what's decided.

15           There is another condition for that case  
16      that does talk about that. When the study is done  
17      that condition comes into play. And at that time  
18      all the agencies, the project owner, CEC will  
19      discuss about the nature of the impacts and  
20      discuss and make decisions relatively quickly  
21      about what the appropriate mitigation will be if  
22      significant impacts are discovered in that study,  
23      that specific study for that specific power plant.

24           PRESIDING MEMBER PERNELL: Thank you.

25           HEARING OFFICER SHEAN: This is for the

1 team. In your professional opinion was the Ormond  
2 Beach proxy data used by the Water Board to  
3 reissue in 2000 the NPDES permit substantively  
4 inappropriate?

5 DR. DAVIS: Are you asking the question  
6 was the study inappropriate? Or was the data used  
7 in the study inappropriate?

8 HEARING OFFICER SHEAN: No. I asked --  
9 let me put it this way. Was the use of the Ormond  
10 Beach proxy data in the reissuance in 2000 of the  
11 NPDES permit for El Segundo substantively  
12 inappropriate?

13 DR. DAVIS: Well, I --

14 MR. ABELSON: Can I just get a  
15 clarification on the word, just on the word  
16 substantively because I actually don't know what  
17 you mean by that.

18 DR. DAVIS: For --

19 HEARING OFFICER SHEAN: What I'm trying  
20 to do is exclude legally --

21 DR. DAVIS: I mean first --

22 MR. ABELSON: So you're talking about  
23 biologically was it adequate, is that the  
24 question?

25 HEARING OFFICER SHEAN: In their

1 professional opinion as biologists --

2 DR. DAVIS: Well, okay, first of all I'm  
3 not a consultant to the Water Board, and I'm not  
4 part of their decision making process. For what I  
5 was charged to do which was to provide an analysis  
6 of biological impacts under CEQA it was  
7 inappropriate to me.

8 HEARING OFFICER SHEAN: Okay, we can ask  
9 some of your mates, there?

10 DR. CAILLIET: All I can do is just take  
11 this slide that Pete Raimondi put on the wall and  
12 just say the Ormond Beach 316B proxy study was the  
13 wrong place, the wrong decade and out-dated  
14 methods. And I agree with that 100 percent.

15 HEARING OFFICER SHEAN: Okay.

16 DR. FOSTER: I think again for the  
17 purpose of the granting the permit is under  
18 circumstances in which has been demonstrated  
19 there's no significant impact. I think it was  
20 substantively inappropriate.

21 HEARING OFFICER SHEAN: Okay. Any  
22 redirect there?

23 MR. ABELSON: Thank you, Mr. Shean. I  
24 appreciate that.

25 //

## 1 REDIRECT EXAMINATION

2 BY MR. ABELSON:

3 Q Mr. York, with regard to the --

4 MR. ABELSON: Did someone just join the  
5 line?

6 BY MR. ABELSON:

7 Q Mr. York, with regard to the entrainment  
8 study that was ordered in the Huntington Beach  
9 case, number one, was that case handled in an  
10 expedited manner because of the particular  
11 circumstances that were going on in California  
12 with the energy crisis?13 MR. YORK: Yes, it was during the energy  
14 crisis and the Energy Commission was responding to  
15 the Governor's emergency order.16 MR. ABELSON: Is that emergency order,  
17 to your knowledge, still in effect?18 MR. YORK: I believe it is not in  
19 effect.20 MR. ABELSON: I'd like to just be clear  
21 for the record, as I heard you -- if I misheard  
22 you, please clarify it, as I heard you, you said  
23 that the study was ordered in Huntington Beach to  
24 commence within a certain period of time after  
25 operations started, is that correct?

1 MR. YORK: That's correct.

2 MR. ABELSON: So until operation starts  
3 the order never takes effect at all, is that  
4 correct?

5 MR. YORK: The condition --

6 MR. ABELSON: Yes.

7 MR. YORK: -- in total does not take  
8 into effect, yes.

9 MR. ABELSON: And even though there was  
10 an emergency and an unusual set of circumstances  
11 that gave rise to that particular condition, that  
12 plant has not started operating?

13 MR. YORK: I believe it's not  
14 commercially operational yet.

15 MR. ABELSON: All right. The other  
16 question that I'd like to ask is whether the order  
17 also requires that when the study is done and the  
18 results are determined that the applicant, in that  
19 case, will be required to fully mitigate the  
20 adverse -- avoid or mitigate the adverse impacts  
21 that are determined, if there are any?

22 MR. YORK: That is correct.

23 MR. ABELSON: I'd like to turn back to  
24 Dr. Davis briefly on the issue of impingement.

25 DR. DAVIS: Yes.



1 MR. ABELSON: Dr. Davis, and actually  
2 any of our biology team is free to answer this,  
3 but you coordinated the effort so I'll direct it  
4 to you, has the -- yeah, I'll just wait --

5 HEARING OFFICER SHEAN: What are we  
6 waiting for?

7 PRESIDING MEMBER PERNELL: Please  
8 continue.

9 MR. ABELSON: Yes, thanks. Has the  
10 Energy Commission Staff in the El Segundo case  
11 ever, to your knowledge, maintained that the data  
12 concerning impingement at El Segundo is inadequate  
13 for purposes of our assessment?

14 DR. DAVIS: No. Our concern is with the  
15 lack of entrainment data.

16 MR. ABELSON: Has the staff ever  
17 contended that thermal data concerning the  
18 operation of El Segundo as currently exists is  
19 inadequate?

20 DR. DAVIS: No, again I would answer our  
21 concern has been with the lack of entrainment  
22 data.

23 MR. ABELSON: So we believe we do have  
24 reasonable data on impingement and thermal, but we  
25 do not have useful data, reliable data on

1       entrainment, is that correct?

2               DR. DAVIS:  That's correct, and that's  
3       been our issue and our problem.

4               MR. ABELSON:  To clarify again, the role  
5       of impingement in terms of our concerns.  We've  
6       heard a moment ago that the impingement numbers  
7       might be as high as 7 percent of the sport fish.  
8       If that calculation is correct would that suggest  
9       to you that impingement might actually be a  
10      significant impact?

11              DR. DAVIS:  Well, that is a large  
12      number, and certainly cumulatively it would be.

13              MR. ABELSON:  I think that is all I need  
14      on redirect and I thank you.

15              HEARING OFFICER SHEAN:  Any recross?  
16      Oh, mercifully, no.

17              (Laughter.)

18              HEARING OFFICER SHEAN:  All right.  
19      Anything from any other party?  Mr. Perkins.

20              MR. PERKINS:  Thanks.  I'd like to  
21      address a question to the panel.

22                              CROSS-EXAMINATION

23      BY MR. PERKINS:

24              Q     How long ago did the Energy Commission  
25      Staff first indicate to the applicant that they

1 wanted what we're calling a 316B-like study?

2 DR. DAVIS: Gee, it was at least two  
3 years.

4 (Parties speaking simultaneously.)

5 MR. YORK: I believe it was before  
6 December 2000.

7 MR. McKINSEY: I'm going to object at  
8 this point. If this is a question coming from the  
9 party, I don't see the relevance of it in this  
10 proceeding.

11 HEARING OFFICER SHEAN: We'll let him go  
12 a little bit further and see if he can --

13 MR. PERKINS: That's as far as I want to  
14 go.

15 HEARING OFFICER SHEAN: Okay.

16 MR. PERKINS: I'll make a statement  
17 about relevance, however. It's only relevant if  
18 the applicant is in any way contending that he'll  
19 be delayed in the construction of this plant if  
20 he's required to do a 316B study, because he's had  
21 two years to get it done.

22 MR. McKINSEY: And I would say we're  
23 not.

24 HEARING OFFICER SHEAN: Okay. Then, I  
25 am -- we're about to conclude this testimony

1       portion of this.  If we have members of any of the  
2       agencies who have jurisdiction or interest in this  
3       matter who'd like to make a comment, we would  
4       invite you to come forward now.

5               MR. MCKINSEY:  We have a short rebuttal  
6       direct.

7               HEARING OFFICER SHEAN:  Oh, do you?

8               MR. MCKINSEY:  Yes.

9               HEARING OFFICER SHEAN:  Oh, all right.

10              MR. ABELSON:  Mr. Shean, is there any  
11       chance of getting a break?

12              (Laughter.)

13              HEARING OFFICER SHEAN:  Yeah, we're  
14       pushing -- apparently not.

15              MR. REEDE:  Well, it's lunchtime.  It's  
16       five minutes to 1:00.

17              PRESIDING MEMBER PERNELL:  Gentlemen,  
18       we're trying to -- what I want to do is conclude  
19       this session --

20              HEARING OFFICER SHEAN:  Wrap it, yes.

21              PRESIDING MEMBER PERNELL:  -- and we're  
22       just about done.  And then, Mr. Reede, you will  
23       have an opportunity to --

24              MR. REEDE:  No, I'm fine; it's him.

25              HEARING OFFICER SHEAN:  All right.

1 Mr. McKinsey.

2 MR. MCKINSEY: Thank you.

3 PRESIDING MEMBER PERNELL: I think we're  
4 almost done here.

5 MR. ABELSON: John, I see some kind of  
6 materials coming out of a yellow envelope. I  
7 don't recognize the materials. I'm wondering if  
8 you're going to be kind enough to give us all  
9 copies before we start looking at them?

10 MR. MCKINSEY: Mr. Mitchell is going to  
11 be using some other tables from the CalCOFI data  
12 which is one of the documents that we already had  
13 as one of his reference documents.

14 MR. ABELSON: Did you provide that  
15 document in its entirety as part of your  
16 submittal?

17 MR. MCKINSEY: No. It's on the  
18 reference list of documents that he referred to,  
19 and I believe the actual data, itself, was  
20 provided originally. And so it's like at the CEC  
21 Library, for instance.

22 MR. MITCHELL: Yeah, we don't need that  
23 up here now.

24 MR. MCKINSEY: We don't need it yet.

25 MR. ABELSON: One of our key witnesses

1 on this issue has stepped out, apparently taking  
2 one of those unavoidable breaks, and I would ask,  
3 it's quite important that he be here; this is Dr.  
4 Cailliet.

5 HEARING OFFICER SHEAN: Okay.

6 DIRECT EXAMINATION

7 BY MR. McKINSEY:

8 Q Mr. Mitchell, --

9 MR. ABELSON: Excuse me, I'd re-raise  
10 the same point. I --

11 MR. McKINSEY: I wasn't given an order  
12 not to proceed.

13 MR. ABELSON: -- didn't know -- we  
14 didn't know that we were going to be looking at --

15 HEARING OFFICER SHEAN: All right, well,  
16 Mr. Reede's going out to find Dr. Cailliet.

17 MR. ABELSON: -- and we have a key  
18 witness who is very familiar with this document,  
19 so it's going to be --

20 MR. McKINSEY: Well, that's not his  
21 first testimony.

22 MR. ABELSON: Okay.

23 BY MR. McKINSEY:

24 Q Mr. Mitchell, you heard yesterday about  
25 the inapplicability of the original 316B studies

1 for purposes of their use today, correct?

2 A Yes, I've heard that.

3 Q My question to you is have things really  
4 changed the way that they were described in terms  
5 of the way in which entrainment studies are  
6 conducted today?

7 A No. Yes and no. It's a two-pronged  
8 answer. The 316B studies in the case of El  
9 Segundo submitted as part of their NPDES permit,  
10 were, of course, done, as we've heard many times  
11 now here, 20 years ago. And they were good data  
12 at that time.

13 The scope of work was worked out with  
14 all the regulatory agencies and there was a  
15 tremendous amount of work that went into it. If  
16 we look at the methodologies, I think we had a  
17 question today about whether methods have changed.  
18 And they haven't changed. We're still sampling  
19 plankton in the same way; you tow a net around  
20 with the same size fabric on it, and you collect  
21 everything exactly in the same way.

22 You're still characterizing receiving  
23 water populations. You still do things exactly  
24 the same way.

25 Now, taxonomy. We've been criticized

1       for taxonomy. At the time the 316B studies  
2       started in 1977 there was probably -- and Greg,  
3       you can correct me if I'm wrong -- there was  
4       probably only a couple of dozen of species of the  
5       fish eggs and larvae that could be identified in  
6       the California current really. The taxonomy was  
7       really poorly worked on. It was something that  
8       science didn't know a lot about.

9               So there were groups of animals, for  
10       instance like croakers, which include a lot of  
11       different species including white sea bass, that  
12       were lumped together. We could tell they were  
13       croakers, but we had no idea what species. That  
14       was true with a number of those groups of  
15       organisms.

16              And for 316B studies done on the Pacific  
17       coast at that time there was a lot of variability  
18       in the capabilities of the people that were  
19       working on those different groups. We like to  
20       think that our group at MBC was one of the better  
21       ones, but there was a tremendous input of effort  
22       by regulatory agencies, the National Marine  
23       Fisheries Service assisted, everybody a great  
24       deal, some people from the Department of Fish and  
25       Game in assisting how we identify these.



1           Toward the end of the original 316B  
2       studies the taxonomy base had increased  
3       tremendously. Probably four to five times as many  
4       fish could be identified. And many of the  
5       groupings were lost by the end of the studies.

6           So I think that we're characterizing  
7       even today the receiving waters exactly the same.  
8       We're still counting larvae. We're counting;  
9       we're identifying them. All those procedures are  
10      exactly the same. The only thing that's different  
11      is how we do the final calculation and determine  
12      what the effect would be.

13          Now, 20 years ago we used what's called  
14      this adult equivalent. That was based upon a  
15      model that was specifically designed for  
16      evaluating the effects of coastal generating  
17      station and intakes. It was perfected by Alec  
18      McCall, who was at the National Marine Fisheries  
19      Service, and is still in that position -- well,  
20      he's in a better position today, he's higher up  
21      the ladder.

22          I don't have any way of relating the  
23      conversation to you other than the fact that I've  
24      talked with Alec about it, and he still feels the  
25      AES is an appropriate approach.

1           Now, there's better approaches maybe  
2   today, or more sensitive approaches, and we've  
3   heard about those today. But those have only been  
4   available in the last five years. And to discount  
5   all of this work that had been done prior, I  
6   think, is inappropriate.

7           Now, let's talk just a few minutes --  
8   oh, I'm sorry. Maybe I'm bolting ahead here?

9           Q    I'm going to --

10          A    I want --

11          Q    -- because we've got to move --

12          A    Okay.

13          Q    I don't want to waste any more time  
14   because we're running late.

15                Yesterday we heard some big numbers  
16   being put out such as trillions of larvae,  
17   billions of eggs. And today we heard again from  
18   Dr. Ambrose indicating that just because a million  
19   eggs could be produced by one fish doesn't mean  
20   that losing some of those eggs is negligible.

21                Can you put these numbers in  
22   perspective, or give your position on that?

23          A    Well, I'll try. Marine organisms, just  
24   in general, put out a lot of eggs and larvae. For  
25   the most part most of them are what are sometimes

1 referred to as broadcast spawners. You know, if  
2 you watch the Discovery Channel you see, you know,  
3 fish floating around shedding eggs and milt  
4 everywhere. And there's millions and millions of  
5 eggs. And I think everybody recognizes that.

6 But we need to keep in mind that we hear  
7 these large numbers and what do they really mean.  
8 Let me give you just -- I just jotted down some  
9 things here this morning. That for instance, a  
10 jack mackerel, and that's one of the fish that's  
11 entrained, a female produces 75- to 100-thousand  
12 eggs with each spawning. It spawns like 25 times  
13 a year. It's one of these spawners that goes all  
14 year round, okay.

15 So that means in a year that individual  
16 fish puts out something in the order of 2.5  
17 million eggs and larvae, okay.

18 Now, there's something in the order  
19 right now the standing stock in Southern  
20 California Bight is 2 million tons. I have no  
21 idea how many eggs and larvae that potentially  
22 produces, but it's bigger than a breadbox, okay.

23 And the losses are really insignificant,  
24 what we see going through the generating station.  
25 They're a small portion of things.

1           If we look at some of the takes that are  
2       allowed in fisheries, for instance. I mean all of  
3       these fish that we're talking about or many of  
4       them have maximum, what's referred to as maximum  
5       sustainable yields. Fishery biologists like Greg  
6       and I, we've all been involved in such things in  
7       the past where you have to calculate what would be  
8       the maximum sustainable yield of this fish  
9       population. How many fish can we extract out of  
10      it in the fisheries without causing any harm to  
11      the population, without degrading in any form.

12           Now, while we've used those models and  
13      they've worked out pretty well, there's a  
14      difference between how things are managed and how  
15      things are researched and studied. So that it  
16      hasn't been real successful when we set up maximum  
17      sustainable yields, because we see the trend is  
18      down in almost every fisheries that's managed.

19           So what I'm after is to put it into some  
20      kind of perspective, we can lose millions of  
21      larvae without causing any significant impact on  
22      the adult populations. And those are the standing  
23      stocks that we're looking to maintain. Those are  
24      the stocks that are harvested. Those are the  
25      stocks that are used by, you know, recreational

1 fishermen. And we would presume that we'd want to  
2 see the mortality come from that portion of our  
3 economy, if you will.

4 Q Yesterday we saw some data that showed  
5 changes in abundance over time, using Dan Pondella  
6 and John Stephens' research over the last 30  
7 years. Do you recall that testimony?

8 A I do.

9 Q Did that testimony give the whole  
10 picture about what's going on in the Santa Monica  
11 Bay and in the Southern California Bight?

12 A No. And one of the things that I think  
13 was -- it was used a bit inappropriately. but one  
14 of the things I wanted to clarify right away. You  
15 remember those graphs that had big lines and then  
16 kind of went down to little squiggles, and they  
17 had a line of them that was presented, at least at  
18 first, as a correlation. And it wasn't a  
19 correlation, it's -- or a regression line, it was  
20 simply a trend line. That you do in XL. And, you  
21 know, maybe a regression line would look a little  
22 different, but at any rate.

23 Those data were from the mouth of King  
24 Harbor near the -- about five miles from the  
25 generating station, the El Segundo Generating

1 Station.

2 What they were looking at is a larval  
3 fish community that's been sampled for decades by  
4 Dr. John Stephens and Dan Pondella. We talked  
5 about this, I think, a little earlier today.

6 And they're very site specific to that  
7 particular area. We see them going up and down in  
8 big range, but generally the trend is downward.  
9 And that downward trend, that same sort of pattern  
10 we see in marine plankton communities and larval  
11 fish, and even the fisheries in general,  
12 throughout the Southern California Bight. So  
13 there's nothing unique particularly about that  
14 pattern.

15 Q Is there any other data available that  
16 gives us a better picture of what's going on in  
17 the Santa Monica Bay?

18 A Well, we see fish data, and I don't  
19 think anybody's had a problem with it, the  
20 impingement data we see shifts in time over time,  
21 in the numbers of fishes that are sucked into the  
22 generating station. We see those same sort of  
23 variations reflected through that whole area.

24 Would this be an appropriate time to  
25 show those slides? Trying to put Santa Monica Bay

1 in context with everything else that's going on in  
2 the world, because we know that over-fishing, we  
3 know that environmental effects, loss of habitat,  
4 all kinds of things potentially affect fish  
5 populations.

6 And this data, and Greg and many of the  
7 people here are very familiar with it, CalCOFI is  
8 this organization, as you saw on the title page,  
9 made up of and basically funded by and run by Fish  
10 and Game and the National Marine Fisheries  
11 Service, who are the agencies obviously  
12 responsible for regulating our fisheries.

13 And this is a summary volume for larval  
14 fish information from 1961 to 1998. Okay. And  
15 you can see the station outlines. You can see the  
16 station locations here; here's Point Conception,  
17 here's San Diego, so here's the Southern  
18 California Bight.

19 And there's an average number of larvae  
20 per, you know, station. And you can see these by  
21 the height of the bars.

22 This particular one is for queenfish;  
23 you'll see the common name in the center,  
24 scientific name here. Can we slide this up a  
25 little bit so everybody can see, because I want to

1       see the bottom half.

2               This stuff has to do with frequency of  
3       occurrence and it's probably not all that  
4       important. This is the number of larvae. Okay.  
5       The concentration of the larvae, and this is the  
6       months, 1 through 12. You can see that over all  
7       of these years from 1961 to 1998, the peak numbers  
8       of larvae are here in the summer months, okay.  
9       Exactly as Greg had testified to earlier. So we  
10      see this pattern repeating itself.

11             Now, what have we got down here? This  
12      is the subject of the last kind of CalCOFI  
13      conference, and Greg and I had some discussions  
14      there.

15             We have now a diagram that shows from  
16      basically like 1949 to 2000, and it's divided up  
17      into all these bars. Now you guys probably can't  
18      see all this, and I hate speakers that say that,  
19      because you usually can't see it, right? But  
20      there's a whole bunch of columns that are going up  
21      and down here. And they represent times of cold  
22      water or times of hot water, okay.

23             And there's this big block here in the  
24      '70 through '76 area, and we're going to call it  
25      transition zone. And there was a cool regime up



1 to here. There was a transition over these years.  
2 There's major oceanographic changes. And then we  
3 have a warm regime, okay. And I just want to  
4 clarify, this is for white croaker, and it's one  
5 of those group that -- no, I'm sorry, it was  
6 queenfish, wasn't it. Queenfish was one of those  
7 groups that we couldn't identify way back here, so  
8 it doesn't occur in all these years because we  
9 didn't know how to identify it. It's not that it  
10 wasn't there, okay.

11 You can see we began to be able to  
12 identify them here during the original 316B  
13 studies. And this particular instance you can see  
14 that there's a downward trend, okay, in queenfish.

15 Let's go to the next one. Because what  
16 I've tried to do is put together this information  
17 just for some of the species that we've seen  
18 entrained, some of the things that would be likely  
19 to be impinged, as well.

20 Here we have Pacific sardine. Pacific  
21 sardine is the whole reason that this whole  
22 program, which once extended from Baja, California  
23 to Oregon, was initiated. We see again this is --  
24 there's two different diagrams up here. This is  
25 before the shift; this is after the shift. We can

1 see this peak. There's again springtime in the  
2 months that we were talking about, but there's  
3 also other large occurring during the year.

4 We can see here, look, this one, sardine  
5 we were able to identify, obviously. And it's at  
6 this relatively low abundance reflecting the  
7 demise of the fishery. And then in the '80s we  
8 began to see it come back. And it's come back  
9 like gangbusters.

10 Let's go to the next one. This is  
11 anchovy. Again, northern anchovy, this is one of  
12 the species, you know, we're talking about  
13 queenfish and anchovy here, and Dr. Foster's  
14 concern that we were taking, sucking in 7 percent  
15 of the sport fishing catch in Santa Monica Bay  
16 based on the figures we just gave a little while  
17 ago. And if you just look at it in terms of  
18 number of fish, that's true. But the fish that  
19 make up what was entrained are these large numbers  
20 periodically of anchovies and queenfish, and not  
21 things that the anglers are catching. So it's  
22 kind of not quite a fair -- if we looked at pounds  
23 of fish or something, because anchovies are little  
24 tiny things and there are lots of them, you know.

25 Here's northern anchovy. We see again

1       this spike during the spring, and we see this --  
2       we see an upward climb and then a downward. This  
3       fish interacts with the sardine in classic  
4       examples of competition, et cetera. So when one  
5       becomes abundant the other one declines.

6               Let's go to the next. This is  
7       blacksmith; on the reef fishes, if you will,  
8       that's found in the impingement samples. And we  
9       saw a number of them in photograph, the video that  
10      Noel had yesterday.

11       Q     Chuck, --

12       A     We don't have to go through all of  
13      these.

14       Q     Yeah, I'm going to --

15       A     I can go through, you know, another  
16      dozen.

17       Q     I'd like to ask you a particular  
18      question. The material is available obviously,  
19      but what is the role of the cool and warm regime  
20      as you look through a lot of the CalCOFI data,  
21      some of which is here, on fish populations?

22       A     Well, there's -- can we pull that down?  
23      I need one of these maps. One of the things  
24      that's kind of interesting is that generally  
25      you'll see people interpret things as like they

1 don't occur here anymore or the population's  
2 declined; they've increased or whatever. But  
3 that's not always the case. They may have just  
4 moved a little, okay.

5 We've got Point Conception here. Point  
6 Conception is a major zoogeographic boundary  
7 between kind of a subtropical environment,  
8 temperature environment and a colder, I don't  
9 know, what do they call it -- Alaskan -- northern  
10 California assemblage.

11 And if you look at the biological ranges  
12 of a lot of these species they end right here,  
13 okay. We've got northern species that come down  
14 to here; we've got southern species that come up  
15 to here. So, as we get these climatological  
16 changes, these massive shifts of el nino years,  
17 the water, if you will, gets a little warmer here,  
18 so we've got more of the warm water fish species  
19 that kind of like shift northward and take up  
20 residence off of Santa Barbara and San Luis  
21 Obispo. When it goes the other way we get the  
22 fish from San Luis Obispo that move down here, and  
23 other fish are moving down into Baja, California.

24 So those are things that we all have to  
25 be aware of. And these are the kinds of things

1       that complicate the whole process of trying to  
2       look at the effects of a fixed structure of any  
3       kind, and a population of fishes that are moving  
4       year to year, day to day, hour to hour.

5           Q     Thank you.

6           MR. McKINSEY:  I'm going to shift to Mr.  
7       Hemig.

8           MR. ABELSON:  Are we allowed to question  
9       the witness?

10          HEARING OFFICER SHEAN:  When he's  
11       through.

12                       DIRECT EXAMINATION

13       BY MR. McKINSEY:

14           Q     Mr. Hemig, you've heard the testimony  
15       yesterday regarding the status of the cooling  
16       water system number one at El Segundo Generating  
17       Station, correct?

18           A     Yes, I did.

19           Q     Do you have any personal knowledge of  
20       the operating condition of the cooling water  
21       system at El Segundo Generating Station at this  
22       time?

23           A     Yes, I do.

24           Q     Can you describe the status of the  
25       cooling water system?

1           PRESIDING MEMBER PERNELL: Excuse me,  
2 before we do that, John, we need our -- our  
3 recorder needs a break. And how much -- so, are  
4 we off the record?

5           COURT REPORTER: No, we're still on.

6           PRESIDING MEMBER PERNELL: Okay, can we  
7 go off the record.

8           (Off the record.)

9           PRESIDING MEMBER PERNELL: Back on the  
10 record. Mr. Shean.

11          HEARING OFFICER SHEAN: Go ahead,  
12 please.

13 BY MR. McKINSEY:

14          Q     I had asked you were you familiar, do  
15 you recall the testimony yesterday and today  
16 regarding the status of the cooling system, and  
17 you had indicated yes. Just refreshing your  
18 memory of where we were.

19                What is the status of the cooling system  
20 number one at El Segundo Generating Station at  
21 this time?

22          A     The current status is the intake one is  
23 operational every day. It's operating for two  
24 general reasons. One is to continue operating the  
25 system, maintaining it so that it's available and

1 ready for the repowered project.

2 But even more importantly is it's  
3 operated because it's essential to the operation  
4 of the existing station units 3 and 4 for various  
5 wastewater discharges that have to be circulated.  
6 And so we operate the intake one every day at  
7 about 50 million gallons per day.

8 Q And what is your current permitted  
9 operational limit on intake number one?

10 A It continues to be the 207 million  
11 gallons per day; that's the current limit.

12 MR. MCKINSEY: That's my only questions  
13 for him.

14 MR. ABELSON: Before we go back to the  
15 biology which is, I think, the last topic  
16 hopefully in this area that we'll be hitting, Mr.  
17 Shean, if I could just ask a couple of quick  
18 questions of Mr. Hemig.

19 CROSS-EXAMINATION

20 BY MR. ABELSON:

21 Q Mr. Hemig, you indicated that it's  
22 operating every day at 50 mgd?

23 MR. HEMIG: That is correct unless  
24 there's a shutdown for some particular reason.  
25 But generally --

1 MR. ABELSON: Are you aware of the fact  
2 that throughout much of the last five or six years  
3 the reporting records to the Water Quality Board  
4 often indicate that the facility was not operating  
5 at all on a particular day or month?

6 MR. HEMIG: Yes, I answered the question  
7 as it is currently operating.

8 MR. ABELSON: Right. No, I understand  
9 that. That's a foundational question. So today  
10 for some reason you're operating every day. And  
11 as I understand it, there were two reasons for  
12 that. One was to get rid of some waste from units  
13 3 and 4?

14 MR. HEMIG: It's used for cooling for  
15 the plant. And there's also some waste streams  
16 that are existing on unit 1 and 2 side, including  
17 sanitary waste.

18 MR. ABELSON: When you have that  
19 shutdown many times in the past what were you  
20 doing to address those needs?

21 MR. HEMIG: It was only temporary  
22 shutdowns and the units were turned back on again,  
23 the circulating water was turned back on again.

24 MR. ABELSON: So we have days at a time  
25 when they were shut off, which the record, I



1 think, will show, they're part of the FSA. You  
2 weren't doing any maintenance or any operation of  
3 units 3 and 4 at all, is that what you're telling  
4 us?

5 MR. HEMIG: I'm saying like I said in my  
6 response to Mr. McKinsey is that it's not every  
7 day. There might be days when it's shut down for  
8 some reason that I may not be privy to, but it's  
9 generally operating every day.

10 MR. ABELSON: All right. Now, about  
11 that operating every day stuff. As I understand  
12 it, you guys have four pumps out there that  
13 basically drive the water through intake number  
14 one, is that correct?

15 MR. HEMIG: That is correct.

16 MR. ABELSON: And if any one of those  
17 pumps is turned on for 24 hours it'll pump  
18 approximately 50 million gallons over the course  
19 of the day, is that correct, more or less?

20 MR. HEMIG: Yes, I think that is  
21 correct.

22 MR. ABELSON: So is it your testimony  
23 that when, and apparently it's not every day, but  
24 when these pumps are on is it your testimony that  
25 they're actually on all 24 hours every day when

1       they're on?

2               MR. HEMIG:  The numbers I looked at are  
3       the daily number, so I can't tell you if it's been  
4       cycled on and off.  I'm not knowledgeable about  
5       that.  But at the end of the day we report the  
6       volume to the Regional Water Quality Control Board  
7       in a monthly report, and that number has been  
8       generally 50 million gallons per day when we've  
9       been operating the one pump.

10              MR. ABELSON:  Very good.  Going back  
11       then to -- thank you, that's all I have on that.  
12       Going back to the biology and Mr. Mitchell's  
13       rebuttal.

14              I'd like to basically ask Dr. Raimondi  
15       to begin and then when he is finished, I'll ask  
16       Dr. Davis to go on to indicate whether or not  
17       anything --

18              MR. MCKINSEY:  I've got a quick -- are  
19       you shifting to rebuttal?

20              MR. ABELSON:  Yeah, to the rebuttal.

21              MR. MCKINSEY:  I don't know if we  
22       verified if there are any other questions for the  
23       witnesses --

24              MR. ABELSON:  Oh, I'm --

25              MR. MCKINSEY:  -- from the other

1 parties.

2 MR. ABELSON: (inaudible).

3 PRESIDING MEMBER PERNELL: From any  
4 other parties?

5 MR. McKINSEY: Well, I'm more addressing  
6 this to the Hearing Officer, I need it for --

7 HEARING OFFICER SHEAN: Are you through  
8 with --

9 MR. McKINSEY: I think he said he's  
10 through cross-examining.

11 MR. ABELSON: On Mr. Hemig, but I'm  
12 moving to Mr. Mitchell.

13 MR. McKINSEY: Okay, I thought you said  
14 you were going to be asking questions of your  
15 witnesses, so you're doing cross-examination --

16 MR. ABELSON: No, I'm -- yeah, we're  
17 moving to basically response to the rebuttal that  
18 was provided today.

19 MR. McKINSEY: That was my point. If  
20 he's done cross-examining I wanted to make sure  
21 that any other parties had any other questions for  
22 these witnesses.

23 HEARING OFFICER SHEAN: Okay. Anything?

24 MR. FLEISCHLI: No.

25 HEARING OFFICER SHEAN: All right, any

1 other party?

2 MR. MCKINSEY: Well, so is that the  
3 case? You are done cross-examining one witness.  
4 You want to do rebuttal, and then you want to  
5 cross-examine Mr. Mitchell? Or are you done  
6 cross-examining these witnesses?

7 MR. ABELSON: Well, I have reserved  
8 cross-examination, and I continue to do that. But  
9 basically I want to afford our witnesses an  
10 opportunity to respond to what Mr. Mitchell said  
11 today --

12 MR. MCKINSEY: I'd like to just offer  
13 the witnesses, in general, to other parties before  
14 we shift to the rebuttal testimony.

15 HEARING OFFICER SHEAN: Okay, and my  
16 understanding --

17 MR. PERKINS: I have no desire to  
18 cross --

19 HEARING OFFICER SHEAN: -- is no other  
20 parties have anything.

21 MR. PERKINS: -- Mr. Mitchell.

22 HEARING OFFICER SHEAN: All right. So  
23 now you're going to your rebuttal, is that  
24 correct?

25 MR. ABELSON: That's correct. And our

1 rebuttal is in the context of what was presented  
2 today. And I'd ask Dr. Raimondi initially, and  
3 then moving on to Dr. Davis and the other members  
4 of our team, as necessary.

5 DIRECT EXAMINATION

6 BY MR. ABELSON:

7 Q Dr. Raimondi, you heard Mr. Mitchell say  
8 that the science hasn't changed much and basically  
9 that the -- well, he said the fish trends are  
10 going down in almost every fishery we manage, but  
11 then he put some charts up, and I'm wondering if  
12 anything Mr. Mitchell said fundamentally you  
13 disagree with? And if so, if you could explain  
14 what that is?

15 DR. RAIMONDI: Yes, first can you hear  
16 me?

17 MR. ABELSON: Yes, I think so. We're  
18 going to try and improve it further. Continue to  
19 talk as loud as you can into your phone.

20 DR. RAIMONDI: All right. I wanted to  
21 comment on a couple of things that Mr. Mitchell  
22 said. The first thing he talked about was really  
23 about the 315B study and points that we had made  
24 yesterday about methodology, about sampling, about  
25 models.

1           The first thing I want to say is that I  
2           think that at the time that the 316B was done in  
3           the late '70s that what was done at that point,  
4           with the exception of it not being done right at  
5           El Segundo, was state of the art. And so I don't  
6           have a fundamental disagreement with what was done  
7           at the time.

8           I think it speaks to how things have  
9           changed that we would no longer ever do anything  
10          like that. And so while the methods are the same  
11          in terms of collection of larvae, I don't disagree  
12          with that, the methods are the same, the materials  
13          are the same, exactly as Mr. Mitchell said, the  
14          locations where we would sample are fundamentally  
15          different when you're doing an empirical transport  
16          model versus a different type of model.

17          That's one of the comments I made  
18          yesterday about you need to plan from the  
19          beginning and not to try to cobble something  
20          together.

21          The models are extraordinarily  
22          different. And as Mr. Mitchell alluded to, and I  
23          think something that supports our position, they  
24          are more sensitive. And that's exactly why we're  
25          using different models now, is because we've found

1       that the models are more sensitive, and we choose  
2       to use the ones that are more sensitive to  
3       detecting change or detecting impacts. It only  
4       makes sense to do that.

5               The next comment that he made was about  
6       life history of marine fishes. And I think that  
7       we would all agree that many marine fishes produce  
8       lots and lots of larvae. That's not the same  
9       thing as saying there's a bunch of wasted larvae  
10      out there, which was the implication of his  
11      assessment. They're not wasted. They're  
12      environmental buffers. They're there for bad  
13      years. They're there and they service other parts  
14      of the community. And to indicate, as he did,  
15      that these things are essentially wasted and then  
16      can be used by the power plant, you know, as it  
17      goes through, as waste, is just wrong. And it  
18      doesn't make any sense and it doesn't make any  
19      sense in terms of life history models that are  
20      present out there.

21             And as a support for that even bringing  
22      up the idea of maximum sustainable yield is simply  
23      silliness at this point. Maximum sustainable  
24      yield has been utilized over and over across the  
25      world with just devastating results, which

1 indicates how wrong we are, or how much  
2 uncertainty there is in the use of these sorts of  
3 models which allow there to be estimates of excess  
4 fish.

5 And so with almost everything that he  
6 said the modern thinking is completely and  
7 fundamentally different. And that's why we're  
8 proposing a different sort of method of estimation  
9 of impact.

10 MR. ABELSON: Very good, Dr. Raimondi.  
11 Do you have more, or can I redirect this now --

12 DR. RAIMONDI: You can redirect.

13 MR. ABELSON: Thank you. Dr. Davis, did  
14 you have any reaction to what Mr. Mitchell offered  
15 and whether or not it fundamentally changes the  
16 staff's testimony?

17 DR. DAVIS: No. I disagree very much  
18 with most of the points made. Like Pete said, and  
19 probably more eloquently than I did, the methods  
20 for 316B studies have changed.

21 Nobody said that the original studies  
22 weren't done in good faith. But back in the late  
23 '70s when those studies were done we also were  
24 using computers that were the size of a house and  
25 took a stack of cards. I mean science advances,



1 and it's advanced a lot in the last 20 years.

2 And secondly, the idea of a surplus of  
3 larvae is just silly. I mean if any fish species  
4 produced more larvae than it needed, basically it  
5 would be wasting energy and it wouldn't still be  
6 here. It would be out-competed by more efficient  
7 species.

8 Most of the larvae produced get lost by  
9 a number of different reasons, to the food chain,  
10 and the intake isn't taking in lieu of those  
11 losses, it's taking in addition to those losses.

12 And finally, you know, none of us would  
13 disagree that there are climatic variations that  
14 are affecting fish populations. And that that  
15 certainly is part of what's going on.

16 Our concern is that when you add these  
17 other impacts to human impacts, including power  
18 plant impacts, to fish populations that are  
19 stressed by these natural variations, there may be  
20 a time when they don't bounce back and we're  
21 seeing that in several of the fisheries.

22 MR. ABELSON: Thank you, Dr. Davis. Do  
23 you have anything else from Dr. Cailliet?

24 DR. CAILLIET: Yes, I have a few points.  
25 A couple of them will repeat, but also amplify Dr.

1 Raimondi and Dr. Davis' comments.

2 I don't disagree with the majority of  
3 what Mr. Mitchell said except that I think the  
4 interpretation relative to the effect of power  
5 plants is probably a little bit wrong.

6 First of all, I agree that the methods  
7 have changed. I agree that we shouldn't discount  
8 old studies because the old methods were there,  
9 but I think we should use new methods when new  
10 methods are available. And as both Dr. Raimondi  
11 and Dr. Davis said, the new methods are far  
12 better.

13 We can identify fish larvae far better  
14 than we used to. We are still using nets, but I  
15 would like to point out that the study in Ormond  
16 Beach used pump samples at the intake, which is  
17 totally different, and certainly not a standard  
18 technique for fish larvae and one of the big  
19 problems with it.

20 And, indeed, as Dr. Raimondi pointed  
21 out, the way we analyzed those data not only using  
22 Alec McCall's adult equivalent loss and our new  
23 fecundity hindcasting, and use Pete's and mine and  
24 everybody else's entrainment models, is a vast  
25 improvement and is more sensitive.

1 I'm not going to comment further on the  
2 billions of larvae lost. I think my previous two  
3 colleagues have pointed out that that is really  
4 not an important point at this stage. Yes, a lot  
5 of larvae are lost, but if power plants increase  
6 the number of larvae that are lost, it can't help.

7 The seasonal question appears not to be  
8 an issue anymore. And Mr. Mitchell even pointed  
9 out that some of those figures I used yesterday  
10 were right, and were echoed by the use of the  
11 CalCOFI report that he passed around to us.

12 The other question is the trends. Are  
13 there really downward trends. And indeed, I even  
14 said yesterday, Pacific decadal oscillations,  
15 regime shifts have occurred. And those are among  
16 the causes of reasons why things go down. In this  
17 case, in the Santa Monica Bay and in the Southern  
18 California Bight in general, there have been  
19 trends in most fishes for their populations to go  
20 down, for their fishery catches to go down. And  
21 as I pointed out, for their larvae to go down.

22 And I used the studies from Dan Pondella  
23 at Redondo Beach, at King Harbor, as an example of  
24 those trends. And if those trends are no good,  
25 which I think I heard Mr. Mitchell say, how can

1       they have been used for Scattergood and El Segundo  
2       in the first place. It doesn't make sense to me.

3               Another point is that he used this one  
4       paper from the CalCOFI reports that was published  
5       by a bunch of people as an atlas. And that's a  
6       summary of all the CalCOFI data from inshore to  
7       offshore. Unfortunately Mr. Mitchell missed one  
8       by Jeff Miller, who was published in the same year  
9       in the CalCOFI reports, where he actually uses  
10      time series to give additional information just on  
11      nearshore, rocky shore fishes. And new data on  
12      cabazone fishes and on sheephead showing that in  
13      the first there was a downward trend. And showed  
14      catch data showing the same trends. And for the  
15      sheephead there was an upward, then a downward,  
16      then an upward trend with this regime shift.

17             So, there's a lot of literature we could  
18      all be citing. The point is that as I see it the  
19      general trends in the fish populations, their  
20      numbers, their biomasses and in the fishery  
21      catches in the last 30 or 40 years have been  
22      downward. The state of Santa Monica Bay's health  
23      is not extremely good. It might be improving in  
24      the last few years.

25             But nonetheless, entrainment can't make

1       this any better. So we do need to have a study at  
2       least to see what proportional mortality might be  
3       being caused by entrainment at the El Segundo  
4       Power Plant.

5               That, in a nutshell, is my response to  
6       Mr. Mitchell's testimony.

7               MR. ABELSON: Thank you, Dr. Cailliet.  
8       Dr. Foster, did you have anything further or are  
9       we done?

10              DR. FOSTER: We're done.

11              HEARING OFFICER SHEAN: You're done?  
12       Okay. Did you have anything?

13              MR. McKINSEY: I have two questions.  
14       And that's it, I promise.

15                              CROSS-EXAMINATION

16       BY MR. McKINSEY:

17              Q     Dr. Raimondi, can you hear me?

18              DR. RAIMONDI: I can.

19              MR. McKINSEY: Did you intend to state  
20       that there has not been a valid 316B study and  
21       determination for El Segundo Generating Station?

22              DR. RAIMONDI: No, that's not what I  
23       intended to say, because that's a legal argument.  
24       I don't know whether there's been one that's been  
25       deemed to be a relevant one or not.

1           What I said is in terms of biological  
2           importance, for biological information, there  
3           hasn't been one that I consider to be informative.

4           MR. MCKINSEY: Thank you. And, Dr.  
5           Cailliet, you had indicated that you shouldn't  
6           discount old studies such as the one completed for  
7           El Segundo Generating Station simply because they  
8           used a state of the art methodology at that time.  
9           Do you recall your testimony just now?

10          DR. CAILLIET: Yes, I said that; but  
11          there was another context with my statement. And  
12          that statement was if you're proposing to approve  
13          a power plant here and you haven't really done an  
14          entrainment study as Dr. Raimondi and everybody  
15          else has stated on this side of the table, it's  
16          time nowadays to use modern methods.

17          MR. MCKINSEY: So is it fair to say that  
18          your position is if we were doing a study today we  
19          should use a different methodology?

20          DR. CAILLIET: Absolutely.

21          MR. MCKINSEY: But at the time they used  
22          the right methodology?

23          DR. CAILLIET: Right or wrong, I can't  
24          make a value judgment. They used what I think  
25          is -- pardon me?

1           MR. McKINSEY: The question is directed  
2 to you, Dr. Cailliet.

3           DR. CAILLIET: In my impression the  
4 study they used, if I recall, was the Ormond Beach  
5 study, is that right?

6           MR. ABELSON: Yes.

7           DR. DAVIS: That's correct, they used  
8 Ormond Beach as a proxy --

9           MR. McKINSEY: Well, hold on. The  
10 question is directed to --

11          DR. CAILLIET: And they used --

12          MR. McKINSEY: -- Dr. Cailliet.

13          DR. CAILLIET: -- they used nets for the  
14 offshore source, and they used pumping for the  
15 intake. And all of us looked at that study and we  
16 said, whoa, number one, it's the wrong place;  
17 number two, it's the wrong technique; and number  
18 three, they didn't use the analysis we can use  
19 nowadays.

20          MR. McKINSEY: So, it's your feeling  
21 that the 316B study completed for El Segundo  
22 Generating Station shouldn't have been accepted  
23 biologically?

24          MR. ABELSON: I'm going to object to  
25 that. That's asking for a legal conclusion. He's

1 given his biological --

2 MR. MCKINSEY: I said biologically.

3 MR. ABELSON: -- opinion. No,  
4 biological --

5 DR. CAILLIET: I'll use the same answer  
6 that Dr. Raimondi used, and that is that  
7 biologically speaking that study was not very  
8 informative.

9 MR. MCKINSEY: And in your evaluation of  
10 this project, you're using today's standards to  
11 evaluate that previous study, correct?

12 DR. CAILLIET: I'm saying since there  
13 hasn't been a biological study that I would  
14 consider to be appropriate, that that study ought  
15 to be done now. If it's going to be done now, it  
16 ought to use modern methods.

17 MR. MCKINSEY: Thank you, that's all.

18 PRESIDING MEMBER PERNELL: Let me ask a  
19 question to the panel, anybody who can answer  
20 this.

21 And that is there's been a lot of  
22 discussion about studies and various models. Is  
23 there a legal standard model to use when you're  
24 doing these studies? Whether it's old or new, is  
25 there anything in existing law that says when



1       you're doing a 316B study you need to do A, B, C  
2       and D? Does anybody know?

3               MR. MITCHELL: I'll take a crack at  
4       that.

5               MR. MCKINSEY: Actually I'd like to  
6       indicate you're asking for a legal question to  
7       biologists. And so all they can really say is  
8       they're aware of whether or not there's a  
9       regulation that specifies what the conduct of the  
10      study shall include, what science or methods.

11              PRESIDING MEMBER PERNELL: Okay, I'll  
12      accept that. And if you don't know, you don't  
13      know. I mean we don't have to guess. I'm just  
14      trying to get a read on what I see here is a  
15      difference of opinion among scientists.

16              And so I'm looking for something that  
17      more concrete, whether it's old or new --

18              MR. MITCHELL: It's not --

19              DR. RAIMONDI: Do you want my comments  
20      on that?

21              MR. MITCHELL: Let me go first, Pete.

22              DR. RAIMONDI: Sure.

23              MR. MITCHELL: I don't think it's so  
24      much a disagreement among scientists, it's a  
25      disagreement on how the methodologies have changed

1 and whether they're more appropriate now or less  
2 appropriate.

3 And if there are -- right now the given  
4 standards, and we see it in the letter I think  
5 today from the EPA Director, is that the standard,  
6 in effect, basically right now for an existing  
7 facility are the 1977 guidelines that are already  
8 in; that's the law.

9 And within that document there are  
10 guidelines on how to do a study now. There are  
11 draft new guidelines that are out. We've all read  
12 them, or most of us. And they're different than  
13 those 1977 guidelines, but they're not enacted.  
14 They're sitting in the same draft form basically  
15 as the 1977 stuff.

16 They require a different set of criteria  
17 and some modeling compared with, I can't remember  
18 how it has to be arranged, but they examine what  
19 the effects are of your cooling water system  
20 intake versus a kind of model with dry cooling.

21 So, in a nutshell, that's kind of it.

22 PRESIDING MEMBER PERNELL: You're  
23 referring to the new rules that we think will be  
24 out in '05 from EPA?

25 MR. MITCHELL: That's correct, in

1 February of '05 -- '04, I'm sorry.

2 PRESIDING MEMBER PERNELL: '04.

3 MR. MITCHELL: Yeah, '04.

4 MR. ABELSON: Dr. Raimondi, did you have  
5 something you wanted to add?

6 DR. RAIMONDI: Yeah, I have a comment,  
7 too.

8 MR. ABELSON: Yes.

9 DR. RAIMONDI: You know, Chuck's  
10 technically right. The guidelines, the legal  
11 guidelines in place are from the '77 rulings.

12 But another way to look at it is what is  
13 the case history, you know, it's just like -- in a  
14 way, and if you look over the last five years for  
15 power plants that have been repowered, have  
16 undergone 316B, most of them and an increasing  
17 number of them have had to go through a modeling  
18 process that was the functional equivalent to the  
19 empirical transport model. It's done slightly  
20 differently if it's on a river versus on an ocean  
21 or an estuary versus an ocean, but the underlying  
22 model is exactly the same.

23 And so what you've seen is a transition  
24 that in cases that have come before the EPA or the  
25 Regional Water Quality Boards, at least the

1 northern ones in this state, where they have moved  
2 toward, almost exclusively toward the use of an  
3 empirical transport model for estimating these  
4 impacts.

5 MR. ABELSON: Dr. Raimondi, is that also  
6 true to your knowledge of the cases in front of  
7 the Energy Commission, as well?

8 DR. RAIMONDI: Yes.

9 PRESIDING MEMBER PERNELL: All right,  
10 anyone else?

11 MR. MCKINSEY: I wanted to make one  
12 comment because it was stated incorrectly. The  
13 1977 guidelines were never approved. And that's  
14 actually why a Hudson Baykeeper sued to force the  
15 EPA to try to actually produce final. The '77  
16 guidelines, themselves, are in draft form. They  
17 were never actually ever approved.

18 So, really, technically there's only  
19 some draft regulations out there from '77 and some  
20 new draft regulations now.

21 PRESIDING MEMBER PERNELL: Okay. So  
22 there is no law, per se, there's only draft  
23 regulations.

24 MR. MITCHELL: That's right.

25 MR. ABELSON: And I think this is a fair

1       characterization of our witnesses' testimony, and  
2       the standards of practice in practice in this  
3       state and throughout the country today.

4               MR. MCKINSEY:  And I would characterize  
5       the difference a little bit by saying that I don't  
6       think we're arguing how to do a study today.  I  
7       think what we're really arguing is that we have a  
8       study from yesterday that suffices for this  
9       project.

10              (Parties speaking simultaneously.)

11             PRESIDING MEMBER PERNELL:  But the  
12       argument on this side is that it doesn't.

13             DR. FOSTER:  It doesn't, correct.

14             MR. FLEISCHLI:  Just so I can weigh in,  
15       I probably have a little bit different perspective  
16       even than this specially, and I appreciate you  
17       pointing out that the Hudson Riverkeeper has sued  
18       on these issues, and like Santa Monica Baykeeper  
19       has sued on these issues.  And perhaps it's best  
20       to just brief this when we brief it.

21             But from my perspective, the statute,  
22       itself, is clear on its face.  The best technology  
23       available is what's supposed to be employed.  The  
24       idea of the studies, to me, is really simply to  
25       inform you on, you know, what we should be doing

1 here. And we should really be focused on the best  
2 technology available.

3 The studies are really something that I  
4 think the industry has allowed to distract the  
5 true process of trying to eliminate extractive  
6 cooling in the first instance.

7 That's my legal position.

8 PRESIDING MEMBER PERNELL: Okay.

9 HEARING OFFICER SHEAN: Okay.

10 MS. MURPHY: I have one real short  
11 question (inaudible) applicant's panel, I guess.  
12 If you were to implement the cap, the voluntary  
13 enhancement that you're offering, how much  
14 electricity would you make?

15 MR. ABELSON: I'm sorry, Michelle, I  
16 couldn't hear the question.

17 MS. MURPHY: How much electricity would  
18 be made in a year?

19 MR. HEMIG: I don't have a number that I  
20 can just answer that. But any reduction in  
21 cooling water would affect the total output of the  
22 facility on an annual basis.

23 MS. MURPHY: So you haven't figured out  
24 how much electricity you'd be making more money or  
25 anything? You just --

1 MR. HEMIG: No, I have not.

2 MS. MURPHY: -- offered that cap without  
3 doing those figures? Okay.

4 HEARING OFFICER SHEAN: Okay, we have  
5 some agencies who have patiently been seated in  
6 the audience, and have some relevant comments.  
7 And we'd like to ask them to come forward before  
8 we take --

9 DR. RAIMONDI: This is Dr. Raimondi  
10 again. I have to go to teach a class. If there's  
11 nothing left for me, I'm going to have to go.

12 DR. DAVIS: Thanks, Pete.

13 MR. ABELSON: I wish you could stay,  
14 Pete, but we wish you good luck at your class.

15 DR. RAIMONDI: Okay. Thanks. Should I  
16 call back just in case?

17 MR. ABELSON: We'll probably be gone by  
18 then, but if you want to check, it won't hurt.

19 DR. RAIMONDI: Okay.

20 MR. WANG: Well, actually, thank you for  
21 your patience and especially now everybody's so  
22 hungry, I guess.

23 (Laughter.)

24 HEARING OFFICER SHEAN: If you would  
25 introduce yourself for the record, please.

1           MR. WANG: Yes, my name is Guangyu Wang.  
2           And I'm Staff Scientist for the Santa Monica Bay  
3           Restoration Commission.

4           And I just want to make a -- it will be  
5           very brief, just two minutes, a clarification.  
6           First of all, it's on our name. The name has been  
7           mentioned so many times in the last day and a half  
8           and has been called the Santa Monica Bay  
9           Restoration Project or Restoration Program,  
10          Restoration Foundation, and finally Restoration  
11          Commission.

12          But I just want to make clarification, I  
13          think they all mean the same for the purpose of  
14          this proceeding. And our official name now is  
15          Santa Monica Bay Restoration Commission, which  
16          became effective January 1st of this year. Before  
17          January 1st we were called the Santa Monica Bay  
18          Restoration Project, as many people have  
19          mentioned, we were part of the National Estuary  
20          Program and we continue to be part of the National  
21          Estuary Program after we change the name. The  
22          name change is just making it official state  
23          agency.

24          So, we start, I also wanted to just  
25          quickly mention that the mission of the agency or



1 organization is to restore, protect the natural  
2 resources of Santa Monica Bay. And we were  
3 initially charged to evaluate comprehensive  
4 conservation plan which was completed in 1995. We  
5 called it Bay restoration plan.

6 In there there are 250 actions  
7 recommending for restoration of the Bay's natural  
8 resources; and 74 of them are priority actions.

9 And also I want to mention that one of  
10 our new responsibilities that's mandated by the  
11 State Legislature which established the new --  
12 gave us the new name, is to coordinate the  
13 restoration activities and also funding of  
14 restoration activities among federal and state  
15 agencies.

16 We have been the coalition of  
17 stakeholders including all the federal agencies,  
18 and actually state agencies. And as well as  
19 private sectors and environmental communities  
20 including, not to mention all of them, including  
21 Fish and Game, NMFS, EPA, State Water Resource  
22 Control Board, Regional Water Quality Control  
23 Board, Heal The Bay, Baykeeper, among others.

24 So, just quickly making two points  
25 regarding that the reason that our name -- one of

1 the reason that our name was mentioned, the  
2 proposal of putting money into the Santa Monica  
3 Bay Restoration Commission as one of the proposal  
4 from applicant, I believe.

5 What I say now is I'm not at a position  
6 to comment on the amount of process, of whether  
7 the amount of dollar that's discussed is  
8 approximate or not. And that's -- I would echo  
9 what Dr. Mark Gold said yesterday, whom you know  
10 that he is the Chair of the Steering Committee for  
11 the Santa Monica Bay Restoration Project, at that  
12 time. And he continue to be.

13 That we need more information and a  
14 clear definition regarding what the question to be  
15 answered and what needs to be done before we can  
16 make determination of the dollar amounts.

17 But regarding to whether the Bay  
18 Restoration Commission can play -- can potentially  
19 assist in coordinating the restoration activities,  
20 I, from the standpoint, I want to say answer is  
21 yes. But I want to emphasize the words potential  
22 because this is a decision that would up to the  
23 Bay Watershed Council, which is our governing  
24 body, to discuss and to make decision.

25 And which, if so desired, by member of

1 Bay Watershed Council. And those are if so  
2 desired, taking into account the opinion of the  
3 Energy Commission.

4 So that -- and finally what I want to  
5 say is we have gone through years of process to  
6 develop the Bay Restoration Plan, as I mentioned,  
7 that has all the recommendations for restoration  
8 in there, including all the potential products  
9 that was brought up, from what I heard of the  
10 testimony in the last day and a half.

11 So I just want to say that we have it  
12 provide the Bay restoration plan as the good  
13 reference, or the basic blueprint, whatever, for  
14 designing future restoration mitigation products.

15 And that's all I want to say.

16 PRESIDING MEMBER PERNELL: Thank you.

17 HEARING OFFICER SHEAN: Thank you, Mr.

18 Wang. Okay, we have a couple other agencies here.

19 MR. VANWAGONER: William Vanwagoner, Los  
20 Angeles Department of Water and Power. And I just  
21 wanted to present some basic information on the  
22 water, itself, the effluent from the Hyperion  
23 Treatment Plant.

24 By City charter, the City of Los Angeles  
25 retains ownership of all water resources within

1 the City. And that does include recycled water,  
2 including the Hyperion Treatment Plant effluent.

3 If the City determines that there's a  
4 surplus of water available then we can sell it  
5 outside the City, and we've done that. A good  
6 example is with the West Basin Municipal Water  
7 District.

8 One point, though, is also by City  
9 charter if the City for some reason in the future  
10 determined that that water was no longer a  
11 surplus, with 120 days notice we could cut back or  
12 even terminate the deliveries of that water if  
13 it's, you know, needed for in-city uses.

14 In general, we --

15 PRESIDING MEMBER PERNELL: Is that part  
16 of your contract?

17 MR. VANWAGONER: It is in our West Basin  
18 contract, and it's also dictated by our City  
19 charter.

20 Also when we're looking at recycled  
21 water, in fact really our primary goal with  
22 recycled water is to use it to displace potable  
23 uses. To basically reduce our reliance on  
24 imported supplies.

25 So, typically we would give that type of

1 a recycled water use a higher priority than to one  
2 that does not have a direct displacement of a  
3 potable use, if it came down to ranking those  
4 types of projects.

5 So, in general, I thought that  
6 information would be useful.

7 PRESIDING MEMBER PERNELL: One other  
8 question. Do you have a -- well, scratch that.  
9 How much excess capacity do you have now?

10 MR. VANWAGONER: Presently there's quite  
11 a bit of excess water. In fact, I think there's  
12 some testimony today to that effect. I'm not  
13 sure, I've also heard a lot of differences in how  
14 much water might be required for cooling. So I'm  
15 not sure if there's actually enough. It sounds  
16 like there's a lot of details that would need to  
17 be worked out in that regard.

18 Also there was mentioned that West Basin  
19 is using about 28- to 30 million gallons per day.  
20 And I know West Basin has plans on perhaps using  
21 upwards of 100 million gallons per day at some  
22 point in time.

23 So, you know, there are some plans. One  
24 thing that we're working on in the City of L.A. in  
25 conjunction with the Bureau of Sanitation is our

1 integrated resources plan. And we will be looking  
2 at opportunities for utilizing that effluent, you  
3 know, out into the future.

4 But at this point in time, you know,  
5 there's quite a bit of water that's heading out  
6 that outfall.

7 PRESIDING MEMBER PERNELL: All right.  
8 Thank you.

9 MR. ABELSON: Can I ask just one quick  
10 question of this witness?

11 HEARING OFFICER SHEAN: Yeah, he's not a  
12 witness --

13 MR. ABELSON: Yes, the comment. Mr.  
14 Vanwagoner, thank you for coming and sharing this  
15 information. Do you understand that the idea that  
16 staff is proposing in this area doesn't actually  
17 consume the water at all; it basically returns it  
18 back to the place that it started?

19 MR. VANWAGONER: My understanding is  
20 there's been several options. One is that you  
21 would take the effluent from the Hyperion Plant,  
22 run it through the cooling system, and then it  
23 would go directly into the outfall. In which  
24 case, you know, using that water for some other  
25 use, it would not be available for some other use.

1 I've also heard another option where it  
2 were returned to the plant and then perhaps used  
3 again by West Basin.

4 We have some concerns, you know, that  
5 the increase in temperature of that effluent might  
6 affect West Basin's operations, for example.

7 Those are some of the areas that we  
8 would want to look at if you were going to use,  
9 you know, to make sure that we were able to  
10 continue with those sorts of uses.

11 MR. ABELSON: Thank you.

12 HEARING OFFICER SHEAN: let me just ask  
13 for clarification, because I think it makes a  
14 difference, does your alternative cooling proposal  
15 have that dual option? Because nothing I saw in  
16 the diagram takes that water back to other than  
17 the --

18 MR. ABELSON: I think that the proposal  
19 that staff has envisioned basically is back to the  
20 cooling ponds. But as Mr. Schoonmaker can  
21 clarify, if he feels I'm saying it incorrectly,  
22 the detailed engineering is just that, and there  
23 probably are several places you could return the  
24 water, including to the tunnels.

25 MR. SCHOONMAKER: Yes, sir, we also did

1 specifically say in the FSA that we could consider  
2 returning it to the West Basin for their  
3 subsequent use. There was concerns expressed by  
4 I'm not sure who, about the increased temperature  
5 and its reuse. And we did specifically address  
6 the topic.

7 We believe that the majority of the  
8 users of the reclaimed water are using it for  
9 cooling, primarily evaporative cooling. And in  
10 that case, raising it 20 degrees is a trivial  
11 difference in the water value to the consumers,  
12 because they evaporate it. And the Btus they get  
13 out of it is far larger than comes from a 20  
14 degree increase.

15 MR. VANWAGONER: I think there may also  
16 be some process concerns as far as ability to  
17 treat that water to the required criteria to serve  
18 to different customers. That's something that  
19 perhaps West Basin might be able to answer better.

20 One other thing I'd like to point out,  
21 too. Typically when we have -- with all of our  
22 recycled water customers, especially those with a  
23 critical facility, we often do recommend some sort  
24 of a backup supply of water. And there's been  
25 some discussions here, for example, of possibly



1       being able to continue to use the seawater, for  
2       example.

3               But it's a good idea to have some sort  
4       of a backup in case the plant does go down, or the  
5       water quality doesn't meet the required  
6       parameters, or some other circumstance, so that  
7       you can keep your plant online.

8               PRESIDING MEMBER PERNELL:  Thank you.

9               HEARING OFFICER SHEAN:  Thank you.  Let  
10      me just go back to this, because if I understand  
11      the testimony you provided, if you were to go to  
12      the West Basin Treatment Plant to discharge --

13              MR. ABELSON:  We have, yeah, I don't  
14      think we, at least in what we talked about  
15      yesterday I don't think we ever talked about going  
16      directly to West Basin Treatment Plant.  I think  
17      the scenario that was on the board was the return  
18      back to the actual holding ponds.

19              But, if you want, the various scenarios  
20      that you can think of, we asked Mr. Schoonmaker to  
21      work thoughtfully through this, and in the FSA in  
22      appendix A there are probably a half dozen  
23      scenarios you can see.

24              MR. REEDE:  Seven.

25              HEARING OFFICER SHEAN:  Okay.  I'll look

1       there.

2               Yes, sir.

3               MR. TURHOLLOW: Good afternoon; my name  
4       is Chuck Turhollow. I'm with the Bureau of  
5       Sanitation, Department of Public Works, City of  
6       Los Angeles, representing Hyperion Treatment  
7       Plant.

8               A number of issues came up during the  
9       testimony and discussions I'd like to provide  
10      clarification for.

11              Hyperion has a joint permit issued by  
12      EPA and the Regional Board because of their two  
13      discharge points, the five-mile and the one-mile  
14      outfall. As a result both agencies jointly issue  
15      a permit for whatever reasons the Regional Board  
16      is the lead agency.

17              Secondly, on the issue of our ammonia  
18      levels are quite high in our effluent, upwards of  
19      over 30 mg/liter recently. That may be considered  
20      in their use for effluent cooling.

21              In addition to that there were questions  
22      the Bureau has about the viability of the five-  
23      mile outfall, itself. It's a structure built in  
24      the late 1950s of so-called bell-and-spigot  
25      construction with a double construction joint O

1 ring. Whether or not the additional thermal  
2 expansion will cause problems with the seals on  
3 the individual joints, and with the anchoring  
4 system, given all that additional heat.

5 The Bureau highly recommends that before  
6 any decisions are made studies are done to insure  
7 that the five-mile outfall is done. And the  
8 City's position is that this should come at no net  
9 cost to the City.

10 Also because of the use of the City  
11 facilities for this purpose, the City believes  
12 that a use fee could be charged for the use of the  
13 five-mile outfall.

14 Also some issues came up on the thermal  
15 plan and issues. One of the reasons the Regional  
16 Board has been historically constricted at raising  
17 temperatures is because of so-called anti-back-  
18 sliding provisions in the Porter-Cologne Act and  
19 the Clean Water Act. That may need to be  
20 investigated to verify that thermal plan variances  
21 discussed here can even be legally granted.  
22 Because typically once the limit is imposed it  
23 cannot be relaxed. And the Hyperion outfall has a  
24 current limit of 100 degrees Fahrenheit.

25 Those are all the comments I have right

1 now.

2 PRESIDING MEMBER PERNELL: Does the  
3 plant use electricity for its power?

4 MR. TURHOLLOW: Yes, we do. We purchase  
5 it from the City Department of Water and Power.

6 PRESIDING MEMBER PERNELL: Do you have a  
7 backup fuel?

8 MR. TURHOLLOW: We're tied to the actual  
9 Water and Power grid, itself, rather than to the  
10 local grids. So in other words, typically the  
11 local grids, we take out a power pole or  
12 something, those will fluctuate. We're tied to  
13 the actual power plant grid, itself, of Water and  
14 Power, the main distribution.

15 So we have had occasions where the power  
16 fluctuates. We have emergency generators  
17 stationed at critical points. But one of the  
18 reasons for our outfall configuration is if we  
19 have normal power the five-mile outfall is the  
20 only outfall used.

21 In the event we lose power at peak flow  
22 we can divert chlorinated secondary effluent out  
23 our one-mile outfall. So the one-mile and five-  
24 mile can meet the flow conditions in gravity.

25 So we do not have permanent backup power

1 to our effluent pumping plant, and again the  
2 technical issues in the City's three comment  
3 letters that I believe are part of the record,  
4 those will need to be things investigated as part  
5 of this.

6 MR. ABELSON: Quick questions. Yes, Mr.  
7 Turhollow, again thank you for taking the time to  
8 sit through such a long proceeding. We appreciate  
9 it.

10 Just a couple of comments. First of  
11 all, we are certainly well aware of the letters  
12 that you filed. They're thoughtful and they're  
13 detailed in the questions that they ask, and we  
14 appreciate it.

15 Do you know, yourself, whether Hyperion,  
16 at one point, actually took some of its treated  
17 water and used it as part of a cooling system for  
18 a power plant at Hyperion?

19 MR. TURHOLLOW: Yes, we did.

20 MR. ABELSON: So you actually used that  
21 water for a power plant?

22 MR. TURHOLLOW: Yes, we used secondary  
23 effluent to power a system of four gas turbines.  
24 And then we had a condensing steam turbine with a  
25 noncondensing steam turbine. When we burned some

1 of our dried biosolid sludge to -- we used the  
2 condenser turbine to generate heat and then steam  
3 from that to run the condensing steam turbine.

4 MR. ABELSON: How many years did that  
5 operate?

6 MR. TURHOLLOW: From approximately 1987  
7 to about 1997.

8 MR. ABELSON: And I'd like to just ask  
9 quickly for Mr. Schoonmaker to indicate to you,  
10 just so you're aware, and if there's any  
11 difference in terms of what he says.

12 Mr. Schoonmaker, the issue about the  
13 warm water going out of the tunnel and the effects  
14 on the joints, I believe you indicated are  
15 possible adverse effects, we received a letter  
16 from the Bureau raising that issue. Did you take  
17 any look at that issue at all?

18 MR. SCHOONMAKER: Yes, and I don't  
19 disagree with Mr. Turhollow at all that it's an  
20 area that needs to be investigated. But I did  
21 look, as an engineer can do, briefly, at a bell-  
22 and-spigot with double O rings, about a 12-inch  
23 bell-and-spigot, and the expansion due to this  
24 temperature rise of the order we're talking about  
25 is of the order of thousands of an inch over each

1 joint length.

2 And thousands of an inch over each joint  
3 length would appear to be readily managed by the  
4 bell-and-spigot design. But, again, I don't  
5 disagree that that needs to be looked at in depth.

6 MR. TURHOLLOW: The Bureau would prefer  
7 that we, you know, bring some experts in to look  
8 at this.

9 MR. SCHOONMAKER: I agree.

10 HEARING OFFICER SHEAN: Okay.

11 MR. MCKINSEY: Actually I do have one  
12 question.

13 HEARING OFFICER SHEAN: Sure.

14 MR. MCKINSEY: There's been a couple  
15 references to holding ponds and holding facilities  
16 at Hyperion Treatment Plant. I know specifically  
17 there's been, I think it's been called a tank or a  
18 pond, but to what extent is there the ability to  
19 temporarily hold or store effluent prior to  
20 discharging it, and what size is that?

21 MR. TURHOLLOW: There is no location in  
22 the plant that can store effluent in its main  
23 configuration. We're basically a pass-through  
24 plant only. Simply because of our extremely large  
25 volumes. We're probably one of the five largest

1 treatment plants in the United States, if not the  
2 world, at our current flow rates.

3 And so even at low flow you're talking  
4 maybe several hundred thousand gallons per minute  
5 coming through.

6 Our effluent pumping plant has a small  
7 wet-well just for the pumps there of maybe several  
8 hundred thousand gallons.

9 MR. MCKINSEY: Thank you.

10 MR. FLEISCHLI: May I ask a follow-on  
11 question?

12 HEARING OFFICER SHEAN: Sure.

13 MR. FLEISCHLI: Can you explain briefly  
14 the difference between the flow-through at the  
15 plant during dry weather versus wet weather in  
16 terms of the volume (inaudible)?

17 MR. TURHOLLOW: The plant can't -- right  
18 now is sized for 450 million gallons per day in  
19 dry weather. It can pass up to 850 million  
20 gallons per day in wet weather right now is the  
21 current design.

22 But there's no actual storage for any of  
23 that through the plant in its regular  
24 configuration.

25 HEARING OFFICER SHEAN: Very good.



1 Thank you, Mr. Turhollow, appreciate it.

2 PRESIDING MEMBER PERNELL: Thank you.

3 MR. TETTEMER: Good afternoon; my name  
4 is Mark Tettemer. I'm with West Basin Municipal  
5 Water District. I want to thank you for letting  
6 me speak, and also thank Mr. Vanwagoner for I  
7 guess summarizing West Basin's position on several  
8 of the issues.

9 Mr. Schoonmaker made an observation  
10 about the minor difference of 20 degrees, and I'm  
11 not disputing that. We clearly think there needs  
12 to be a lot more study looked at the impact of  
13 higher temperatures to West Basin.

14 But we've talked with some of the  
15 consultants who helped to design some of our  
16 microfiltration facilities for the additional  
17 treatment. We serve several refineries with  
18 recycled water that's gone through additional  
19 treatment beyond tertiary treatment. And their  
20 concerns are that the increased temperature, while  
21 it does help in terms of an efficiency perspective  
22 in processing water, may also cause a greater  
23 amount of impurities to get through.

24 And we are under contract with these  
25 refineries to provide spec water. And our

1 concerns are that we may be approaching the point  
2 where we cannot produce the water that we are  
3 contractually obligated to provide if this warmer  
4 water does reach the facility.

5 So, it's an open issue; we don't have  
6 the answer. But the consultants are warning us we  
7 need to be careful here, and we will need to spend  
8 more time looking at that.

9 The 28- to 30 million gallons per day  
10 which was talked about, that is what we are  
11 currently doing. But, again, to reinforce what  
12 Mr. Vanwagoner said, we do have plans to go to 70-  
13 to 100 million gallons a day.

14 We're a customer-driven program. We go  
15 where the demands are. My job is to go out and  
16 try and identify potential customers and secure  
17 contracts and get them to take recycled water.  
18 But that's not a guarantee that everywhere I go I  
19 can get a sale, so to speak.

20 So we go where we can, and we're  
21 certainly hopeful to try and get to the 70- to 100  
22 million gallons a day. But that future's  
23 uncertain. But we do have plans to expand. And  
24 the facilities, our current facilities allow us to  
25 do that. Our current West Basin plan has the

1 ability to grow and process more water.

2 PRESIDING MEMBER PERNELL: What are some  
3 of your customers? Are they industries there --

4 MR. TETTEMER: Yeah, our four largest  
5 customers, we serve about 170 from the West Basin  
6 Treatment Plant. The four largest are the three  
7 refineries Chevron, Exxon Mobil and BPARCO, and  
8 then the fourth one is the groundwater barrier  
9 injection well system along the coast which goes  
10 about from LAX to Palos Verdes.

11 Those represent our four largest  
12 customers and take about 90 percent of the 28- to  
13 30 million gallons that we process right now.

14 So, significant portion of the flow that  
15 we do process is subject to the additional  
16 treatment.

17 MR. ABELSON: Quick question, if I  
18 could, Mr. Tettemer. Just one quick question.  
19 You said you're 28 to 30, and planning hopefully  
20 to have customer base at 1700 over some period of  
21 time.

22 Possible that El Segundo, if they took a  
23 positive attitude, they might be one of those  
24 customers?

25 MR. TETTEMER: With regard to what water

1 are we talking about?

2 MR. ABELSON: With regards to the water  
3 you're processing.

4 MR. TETTEMER: Absolutely.

5 MR. ABELSON: Thank you.

6 MR. McKINSEY: I have a question. You  
7 said El Segundo, do you mean the City of El  
8 Segundo?

9 MR. ABELSON: No, I was talking about  
10 the power plant.

11 MR. TETTEMER: The project, yeah. No,  
12 there has been some discussion with them about  
13 taking water, but not for cooling purposes, for  
14 other purposes.

15 PRESIDING MEMBER PERNELL: But you have  
16 a concern when it comes to cooling purposes  
17 because of the increase in the temperature?

18 MR. TETTEMER: Correct. The once-  
19 through scenario has the warmer water reaching  
20 West Basin, if it's done where the water would go  
21 from Hyperion to El Segundo, and then somehow get  
22 routed back to West Basin, where we do consume the  
23 water. We process and consume the water, so it's  
24 not available to come back.

25 Yes, that higher temperature does cause

1 concern for us, not only in the treatment I talked  
2 about, not only the supplemental treatment of  
3 microfiltration, but also for possible regrowth in  
4 the lines, and we don't know what the impact of  
5 that would be, as well.

6 MR. ABELSON: The only -- I guess I'd  
7 comment is just simply that you're aware that  
8 there's seven different configurations in the  
9 staff's alternative material?

10 MR. TETTEMER: Um-hum.

11 MR. ABELSON: And all you're really  
12 saying is before you can buy into it we need to  
13 take a close look?

14 MR. TETTEMER: West Basin's always been  
15 available to answer questions and participate as  
16 we have from its inception. We just want to make  
17 sure that gets a thorough look, and make sure it  
18 does not negatively impact our program and our  
19 growth of the program.

20 MR. McKINSEY: I just have one question.

21 HEARING OFFICER SHEAN: Um-hum.

22 MR. McKINSEY: Another theory that's  
23 been proposed would be that in either a backup or  
24 as an addition we could use both non-disinfected  
25 secondary effluent and seawater. And then

1 basically one theory was if there was lower flows  
2 available from the non-disinfected secondary  
3 effluent then we would start bringing in seawater  
4 and blending that. And both of these blended  
5 seawater and the non-disinfected secondary  
6 effluent would then flow out through the outfall  
7 at Hyperion.

8 My question to you is --

9 MR. ABELSON: I'd object to that, John.  
10 That's a mischaracterization of what we testified  
11 to, and it's not correct.

12 MR. MCKINSEY: How is it not correct?

13 MR. ABELSON: Because under the dual  
14 scenario, and again I'll ask Mr. Schoonmaker if  
15 I've misunderstood, and simply withdraw my concern  
16 I have, but I believe under the dual scenario  
17 basically we were talking about an emergency  
18 backup where you would be able, in certain very  
19 limited severe conditions, to use seawater which  
20 would be drawn through your existing intake and  
21 discharged through out, discharged out of your  
22 existing outfall, not out of Hyperion.

23 MR. MCKINSEY: That was one. I'm not  
24 referring to that one. I'm referring to the one  
25 where we would add seawater when there was

1       insufficient flow of non-disinfected secondary  
2       effluent, blend them and send that blended flow  
3       back to Hyperion. And that is an option.

4               MR. REEDE: And that's straight out the  
5       pipe.

6               MR. McKINSEY: So, my question is, given  
7       that option, are you able to take anything that  
8       has seawater added into the treated effluent?

9               MR. TETTEMER: I guess my short answer  
10      is you give enough money to the problem we can fix  
11      it. You could, but, no, our facilities were not  
12      designed to anticipate that level of additional  
13      treatment be required to take it from 35 million  
14      parts or whatever it is, down to something we'd be  
15      satisfied with.

16              Recycled water from an irrigation  
17      perspective, we operate at about the 700 total  
18      dissolved solids. We don't have the facilities  
19      to -- our facilities don't take that, don't remove  
20      TDS from the water. So that becomes a nonstarter  
21      from an irrigation perspective.

22              So in terms of the number of customers  
23      we serve, 170 in total, 166 of them are for  
24      irrigation purposes. And that basically would be,  
25      we would not be able to provide them recycled

1 water for irrigation purposes.

2 As relates to the additional treatment  
3 for the microfiltration reverse osmosis, no, our  
4 facilities were not designed to anticipate that  
5 level of inflow, either.

6 MR. ABELSON: Commissioner, just for  
7 clarification, Mr. Schoonmaker indicates to me  
8 that we have not proposed that. And, in addition,  
9 it is also my understanding that West Basin  
10 basically takes their water, if you will, upstream  
11 of where we're proposing to return it.

12 So I'd let Mr. Schoonmaker answer  
13 because he is our expert and he knows what he  
14 wrote. But I don't want the record to be  
15 confused.

16 MR. SCHOONMAKER: He's made an excellent  
17 statement. I must have coached him well.

18 (Laughter.)

19 PRESIDING MEMBER PERNELL: Anything else  
20 for the --

21 MR. GARCIA: I have a question and it's  
22 a follow-on to Commissioner Pernell's question.  
23 Of your customers what are the typical end uses  
24 that they put the water to? Is that used in  
25 process? I know one of it sounds like it's for



1 re-injection into the ground. Could you elaborate  
2 on that?

3 MR. TETTEMER: Okay. The four large  
4 customers, we have the three refineries. BPARCO  
5 is presently only using it for cooling tower  
6 makeup water. That's also the case for Exxon  
7 Mobil and Chevron. But for Mobil and Chevron,  
8 they go also using it for boilerfeed.

9 In fact, we recently went online, if I  
10 could take a minute to brag about West Basin, went  
11 onfeed with high pressure boiler feed water for  
12 Chevron which takes the water down to about 5  
13 parts per million in terms of TDS. It's a very  
14 pure, approaching distilled water, they use in  
15 their, I think, 1200 pound boilers.

16 So that's the three refineries. The  
17 groundwater injection system is a series of 250, I  
18 think, wells from LAX down to Palos Verdes to  
19 prevent the intrusion of seawater into the  
20 groundwater basin when during, I think, the '40s  
21 and '50s it was over-draughted. Seawater was  
22 getting in and compromising the production wells.  
23 So a line of wells has been put in. That is fed,  
24 that series of wells is fed with 50 percent  
25 potable water and 50 percent recycled water from

1 West Basin's Treatment Plant.

2 MR. MCKINSEY: I wanted to get a chance  
3 to brag a little anyway, just to -- because you  
4 did ask a question about El Segundo Generating  
5 Station becoming a customer. This project  
6 actually involves us using tertiary treated water  
7 from West Basin for boiler feed makeup, much like  
8 these other units. And I don't remember what the  
9 numbers are, but is that going to place us as a  
10 large customer on the list?

11 MR. TETTEMER: No, not at all.

12 MR. MCKINSEY: Okay.

13 HEARING OFFICER SHEAN: Thank you very  
14 much.

15 PRESIDING MEMBER PERNELL: Thank you.

16 HEARING OFFICER SHEAN: Do we have any  
17 other agency that wants to make a comment? Is  
18 there a member of the public who would like to  
19 make a comment?

20 Is there anybody who'd like to go to  
21 lunch?

22 (Laughter.)

23 UNIDENTIFIED SPEAKER: So moved.

24 (Parties speaking simultaneously.)

25 HEARING OFFICER SHEAN: All right,

1 according to our calendar for the day, we are  
2 going to return and do air quality, which will be  
3 a combination of the FDOC, presentation by the  
4 applicant and staff, and intervenor Murphy/Perkins  
5 and Mr. Nickelson. So, --

6 MR. ABELSON: How late are we running  
7 today overall?

8 HEARING OFFICER SHEAN: Well, we're --

9 MR. REEDE: We're an hour and 20  
10 minutes.

11 HEARING OFFICER SHEAN: -- in terms of  
12 we're running late now by two hours and 21  
13 minutes.

14 MR. ABELSON: But how late is the day --

15 HEARING OFFICER SHEAN: The total time  
16 we've put on our calendar for today was until 8:00  
17 p.m. So, let's just see if we can make some up  
18 when we get back here for air quality.

19 All right, 40 minutes. We'll be back  
20 here at 3:00.

21 (Whereupon, at 2:25 p.m., the hearing  
22 was adjourned, to reconvene at 3:00  
23 p.m., this same day.)

24 --o0o--

## 1 AFTERNOON SESSION

2 3:10 p.m.

3 HEARING OFFICER SHEAN: We're on the  
4 record. So let me just go through the obvious  
5 things first, Mr. Abelson. We've got the staff's  
6 direct written testimony which was filed on  
7 January 22nd; staff's response to written direct  
8 testimony filed February 10. Also including the  
9 sections of the FSA which are section 4.2 entitled  
10 biological resources, as well as 4.2 appendix A  
11 dealing with the cooling options, correct?

12 MR. ABELSON: Yes, that's if you had  
13 intended that to be, and that's really good stuff.

14 HEARING OFFICER SHEAN: All right. It  
15 was excellent stuff. Is there objection to its  
16 admission into evidence, if we haven't done so  
17 already?

18 Okay, hearing no objection, it's  
19 admitted.

20 Now, we have a couple of I guess other  
21 little minor matters. The staff --

22 MR. ABELSON: The other thing I just  
23 wanted to be clear about, Officer Shean, was that  
24 we had both testimony and -- well, let me just get  
25 a basic assumption from you, because if I

1 understand that, that changes my list.

2 Are you accepting into the record,  
3 assuming a witness has been offered on the issue,  
4 any and all of the written direct and rebuttals?  
5 That just automatically happens? For example, the  
6 Coastal Commission filed two letters on the 22nd  
7 of January and the 10th of February. Are those  
8 just in?

9 HEARING OFFICER SHEAN: Those are in  
10 because I think we specifically asked Mr. Luster,  
11 and they're in.

12 MR. ABELSON: Okay. And, of course,  
13 they specifically refer to the I don't know  
14 whether it was November 9th and the April letter  
15 from the Commission, so I assume they're in the  
16 record, as well.

17 HEARING OFFICER SHEAN: Well, those have  
18 not been taken in for their content, but they're  
19 in the administrative record. And given that the  
20 two that were admitted -- let me just say, those  
21 are in the administrative record support by  
22 hearsay the testimony that's in the two admitted  
23 letters.

24 MR. ABELSON: Okay. And then we had Mr.  
25 Paznokas here yesterday and he made reference to

1 Fish and Game's letter of I think it's, let me  
2 check my file here, I think it's June 22, 2002. I  
3 wanted to be sure that that was in the record.  
4 June 26, 2002.

5 And if not I have ten copies here that  
6 I'm happy to -- it's been docketed.

7 HEARING OFFICER SHEAN: Okay, I don't  
8 happen to have that. You're talking about CDF  
9 letter June 22?

10 MR. ABELSON: It's actually -- let me be  
11 very accurate about what it is. It's actually a  
12 memorandum dated June 26, 2002, from Sandra Morey  
13 of the Habitat Conservation Branch of Fish and  
14 Game to Mr. Reede, docketed on July, at least on  
15 my copy, on July 5th of 2002. And referred to by  
16 Mr. Paznokas in his testimony.

17 And I guess I understood, but to just be  
18 clear, the National Marine Fisheries Service --

19 HEARING OFFICER SHEAN: Okay, before you  
20 get to that --

21 MR. ABELSON: Sorry, I'm sorry.

22 HEARING OFFICER SHEAN: -- do you have a  
23 problem admitting this, transferring it from  
24 administrative to the evidentiary record? Okay.  
25 The June 26, 2002 memo from Sandra Morey to James

1       Reede is admitted.

2               MR. ABELSON:  And, again, if anybody  
3       needs copies I've got some extras so I'm happy to  
4       provide them.  There was both faxed to us and  
5       docketed on the 10th of February from the National  
6       Marine Fisheries Service about a two-page response  
7       to direct testimony.  Mr. Shean, if you don't have  
8       a copy of that I'd be happy to provide it.

9               HEARING OFFICER SHEAN:  Okay, I have a  
10       document, a three-page document entitled National  
11       Marine Fisheries Services response to direct  
12       testimony --

13              MR. ABELSON:  Yes, and that's what --

14              HEARING OFFICER SHEAN:  It's not dated,  
15       but it is signed by a Rodney R. McInnis.

16              MR. ABELSON:  Right, and the document,  
17       itself, that you're referring to is not dated, but  
18       I believe if you look at the top, if you've got  
19       the same one I'm thinking about, there should be a  
20       fax date on the top of February 10th.

21              HEARING OFFICER SHEAN:  That's correct.

22              MR. ABELSON:  Okay.  So that's in the  
23       record then?

24              HEARING OFFICER SHEAN:  Is there any  
25       objection to that in the record?  That's fine,

1       it's admitted.

2               MR. ABELSON:  Okay.  The only other  
3       things I think I want to be sure are in the record  
4       is that we did have a slide presentation,  
5       PowerPoint presentation.  I'd like the hard copy  
6       version in the record.  And I would offer for the  
7       services of the record if you need it, the disk  
8       drives that have both the PowerPoint and the movie  
9       on them.

10              HEARING OFFICER SHEAN:  Okay, so you're  
11       talking this document?

12              MR. ABELSON:  Yes, sir.

13              HEARING OFFICER SHEAN:  And the brief  
14       movie by --

15              MR. ABELSON:  Right.

16              HEARING OFFICER SHEAN:  -- Dr. Noel  
17       Davis?

18              MR. ABELSON:  Dr. Noel Davis, of her  
19       dive, yeah.

20              HEARING OFFICER SHEAN:  Any objection to  
21       that?

22              MR. MCKINSEY:  I'm trying to figure out  
23       the role of the movie in the record, but I don't  
24       have any objection to it.

25              MR. ABELSON:  Yeah.  And then the only



1 final housekeeping issue related to our  
2 presentation yesterday is that I would like to  
3 offer that tag board that has the photograph and  
4 so on. Again, just to be part of the record  
5 because it was used and it was presented.

6 HEARING OFFICER SHEAN: Well, actually  
7 I'm going to say thank you, but no. Since we know  
8 that there are storage issues with regard to both  
9 docket, and after the document leaves --

10 MR. ABELSON: All right.

11 HEARING OFFICER SHEAN: -- and is  
12 archived. Since that is reproduced here on the  
13 second page of your PowerPoint presentation, that  
14 would be duplicative, other than the picture of  
15 somebody diving, which, of course, is in the  
16 movie.

17 MR. ABELSON: In the movie. What we'll  
18 do, because that's acceptable with us, too, but I  
19 will ask Dr. Davis to retain this particular board  
20 for, you know, a couple years at least. So if  
21 there's any need for it, well, people can have --  
22 we'll keep it out of our system for now.

23 HEARING OFFICER SHEAN: For her  
24 grandchildren.

25 (Laughter.)

1 HEARING OFFICER SHEAN: Okay. Does  
2 that, we think, complete the staff's side of the  
3 biology record?

4 All right, anything further then? Just  
5 any housekeeping matters from the applicant?

6 MR. McKINSEY: Yes, I want to affirm  
7 that the copy of our slide presentation yesterday,  
8 I believe we put it in the record. And then --

9 HEARING OFFICER SHEAN: Let's just make  
10 sure that if you didn't, it is, which is a  
11 multipaged document entitled, ESPII visuals for  
12 oral testimony. Is there objection to admission  
13 of this?

14 MR. ABELSON: No objection.

15 HEARING OFFICER SHEAN: Okay, it's  
16 admitted.

17 MR. McKINSEY: And then the document  
18 that we handed out today and was used for the  
19 slide presentation today, likewise in the record.

20 HEARING OFFICER SHEAN: Okay,  
21 distributional atlas of fish larvae and eggs in  
22 the Southern California Bight region 1951 to 1998,  
23 dated March 2001.

24 MR. McKINSEY: It should probably be  
25 considered selected portions. It's --

1 HEARING OFFICER SHEAN: All right,  
2 selected portions.

3 MR. MCKINSEY: -- but it's not written  
4 on the cover of it.

5 MR. ABELSON: Right. No, no objection  
6 to that.

7 HEARING OFFICER SHEAN: That's admitted.

8 MR. ABELSON: Two other housekeeping  
9 matters from our side of the table. Number one, I  
10 believe we had a slide that we used yesterday when  
11 we were doing, I think it may have been cross-  
12 examination of Mr. Mitchell on seasonality. We  
13 had one slide that was not integrated into our  
14 original packet because we didn't know he was  
15 going to use a particular slide.

16 So I'll have a hard copy. It has to do  
17 with seasonality. I'll have a hard copy of that  
18 made and we'll tender it hopefully without  
19 objection later on.

20 We also believe, and we'll do further  
21 checking, but just for the record there was an  
22 observation by one of the Commissioners or one of  
23 the Advisors yesterday that on what we call our  
24 zero baseline table, the one where we have the  
25 zeroes across the top. It was clear --

1 HEARING OFFICER SHEAN: Yes, the  
2 arithmetic error.

3 MR. ABELSON: -- that there was an  
4 arithmetic error. At the moment it looks like it  
5 was a typo and the correct number should be, and  
6 we will verify this further and correct it further  
7 if it turns out that I'm inaccurate this  
8 afternoon, the correct number appears to be 7231  
9 instead of 4231. And we will double check that  
10 further, and if it's wrong -- okay, we'll check  
11 further, but we reserve the right to make that one  
12 correction because it's clearly just a typo or  
13 math error.

14 MR. MCKINSEY: I have one other  
15 administrative --

16 HEARING OFFICER SHEAN: Okay.

17 MR. MCKINSEY: -- item. Yesterday  
18 staff's witnesses in the area of alternative  
19 cooling option had referenced, and I pointed this  
20 out yesterday, they had referenced a study in  
21 their written testimony, and they made further  
22 reference to it during their oral testimony  
23 yesterday. And that was a thermal analysis that  
24 had been completed. And I think we were told  
25 yesterday it had just been delivered from someone

1 back east coast over the weekend.

2 I want to make clear that that study is  
3 not in the record, and we don't think it should be  
4 in the record because it hasn't been tendered by a  
5 witness. There were references to it in the  
6 testimony, and we're not moving to strike that  
7 testimony, so to speak. But I would just like to  
8 kind of make it clear that at least the fact that  
9 the study was never produced should go to the  
10 merits of the testimony and the weight it's given.  
11 And if staff doesn't have an objection to that,  
12 then I'm fine on this issue.

13 MR. ABELSON: Well, I think I'd like to  
14 rejoin on that, because what we're trying to do is  
15 work in real time to get the Committee all the  
16 information that we can. And new charts were  
17 presented by the applicant, have been put into the  
18 record in the course of this hearing.

19 We certainly -- I don't object to the  
20 principle point you make, Mr. McKinsey, which is  
21 that if this goes into the record we may need to  
22 have a limited reopening of the issue. But I  
23 think it's -- there was rebuttal information that  
24 was being provided by you folks that we were  
25 scrambling to try to deal with. We got it. It's

1 real. It's here. And we've offered it. And I'm  
2 prepared to reopen at some future times, but to  
3 leave it out, it seems to me, is to leave the  
4 record incomplete.

5 MR. MCKINSEY: The issue I'd have is  
6 that this is --

7 HEARING OFFICER SHEAN: Stand by,  
8 because I don't think it was -- the document, if  
9 you're referring to the document, the gentleman  
10 said -- the witness said he had gotten Saturday --

11 MR. ABELSON: Right.

12 HEARING OFFICER SHEAN: -- was not  
13 admitted into evidence.

14 MR. ABELSON: That's true.

15 HEARING OFFICER SHEAN: He merely  
16 referred to it. So it is not currently in the  
17 record, and it's not something on which the  
18 Committee or Commission could rely on to make a  
19 finding. Is that --

20 MR. ABELSON: Except to the extent there  
21 was testimony about it and --

22 HEARING OFFICER SHEAN: We could rely  
23 upon the witness' testimony --

24 MR. ABELSON: All right, well, that's,  
25 at the moment, that'll have to be acceptable.

1 We'll consider whether to move to reopen or  
2 whatever later on.

3 HEARING OFFICER SHEAN: And with what  
4 you have just said is also correct, that given the  
5 nature and timing and availability of the report.

6 MR. McKINSEY: What I would say is we  
7 were rendered completely unable to cross-examine  
8 him on that issue.

9 HEARING OFFICER SHEAN: Correct. Okay.  
10 What happened to the email from Deborah Nagle to  
11 James Reede and the attached memorandum from  
12 Michael Cook to Water Division Directors, Regions  
13 I through X? I'm not sure that that --

14 MR. ABELSON: I think it's in exactly  
15 the same status, which it's been referred to; we  
16 have it; we provided copies to the applicant, I  
17 believe, has it now. But the point is exactly the  
18 same Mr. McKinsey made a moment ago, which is that  
19 it is true that it wasn't in the record because we  
20 didn't have it until two days before.

21 MR. McKINSEY: And as another  
22 housekeeping item, Mr. Reede who referred to it  
23 actually, I don't think, was sworn in at the time.  
24 And I don't know, I raised that at the time, and  
25 we never did swear him in, either. So -- but, we

1 haven't really reviewed that letter yet. And so  
2 we would agree, it's not in the record at this  
3 time.

4 HEARING OFFICER SHEAN: Okay. And let  
5 me just indicated that Mr. Miner from Gunderboom  
6 had left behind a couple of these brochures. And  
7 I'm just going to put it in the docket. And  
8 there's, I guess this is CDs, not a DVD, that may  
9 be the presentation that he made to us this  
10 morning.

11 Okay. I think all the housekeeping  
12 matters are done, and now three hours and 23  
13 minutes later, we can get to air quality.

14 Our calendar shows we were going to have  
15 the written direct testimony presentation by the  
16 applicant is my recollection, and follow that with  
17 the same from the staff. And then we have cross-  
18 examination opportunities for Intervenor Murphy/  
19 Perkins, as well as Mr. Nickelson.

20 Okay.

21 MR. MCKINSEY: Thank you, Hearing  
22 Officer Shean. Our written testimony is provided  
23 in the two documents that are already in the  
24 record, our written testimony and our rebuttal  
25 testimony.



1           We also have a declaration from Mr. Cabe  
2           as to the accuracy of that testimony. And on page  
3           2 of our written testimony we have a list of the  
4           documents that we designate as our testimony in  
5           this area. And we would move to have those be  
6           admitted as our testimony and to be documents in  
7           the record.

8           HEARING OFFICER SHEAN: Okay, is there,  
9           I'm sorry, two pages, the direct was page 1 and 2;  
10          and on page 2 is a list of references that they've  
11          listed that support their testimony. So I guess  
12          I'll ask at this point, is there objection to  
13          admission of the list on page 2 of the applicant's  
14          direct testimony, items A through G, into  
15          evidence?

16          I think you're going to find, if you  
17          would prefer, that both of those microphones at  
18          your table are satisfactory.

19          MR. PERKINS: Okay. Ms. Murphy and I  
20          have no objection. I doubt that the staff does.

21          HEARING OFFICER SHEAN: Okay. In the  
22          absence of an objection, they are admitted.

23          MR. MCKINSEY: That concludes our  
24          written testimony.

25          HEARING OFFICER SHEAN: All right.

1           MR. McKINSEY: In other words, we  
2 didn't, we weren't planning on doing any oral  
3 direct testimony, so I was just --

4           HEARING OFFICER SHEAN: No, okay. No, I  
5 understand.

6           MR. McKINSEY: -- establishes our  
7 written.

8           HEARING OFFICER SHEAN: Do you want to  
9 wait till the staff has their admitted, then you  
10 can sort of pick who you want to ask questions of?

11          MR. PERKINS: Sure. Let's get the  
12 staff's stuff in evidence and then we'll --

13          HEARING OFFICER SHEAN: Certainly, okay.

14          MR. PERKINS: -- proceed.

15          HEARING OFFICER SHEAN: Staff.

16          MR. ABELSON: What I'd like to do, Mr.  
17 Shean, with the Committee's permission is this.  
18 We have witnesses here on this issue. Are we  
19 doing just air quality first, or is there some  
20 desire to combine the public health --

21          HEARING OFFICER SHEAN: I think they  
22 should be combined for the clarity of the record  
23 and the convenience of the proceeding.

24          MR. ABELSON: You want public health and  
25 air together?

1 HEARING OFFICER SHEAN: Yes.

2 MR. PERKINS: For a little clarity in  
3 the record, that is not what the Committee's  
4 announced schedule provided, and while I think I  
5 can examine both of those folks today, I'm not  
6 sure that the other parties are prepared to. And  
7 I'm not as prepared as I would be tomorrow.

8 I'm sorry, I thought public health was  
9 scheduled for tomorrow morning. Well, if I'm  
10 wrong about that, then that sort of moots any  
11 problem I have with being ready, doesn't it?

12 HEARING OFFICER SHEAN: We want to make  
13 sure you're ready, and that you're satisfied  
14 you're fully participating, so if you need --

15 MR. PERKINS: Yeah, I'm going to have to  
16 beg your indulgence because I have some -- I'll be  
17 glad to do it, but I have some visual aids that  
18 are prepared for Mr. Loyer, and I thought Mr.  
19 Odoemelum, Dr. Odoemelum was scheduled for  
20 tomorrow, and didn't prepare visual aids, so we'll  
21 be a little sloppier, but that's my error and  
22 we'll just do what we can.

23 MR. ABELSON: So with that  
24 understanding, Officer Shean, what I'd like to do  
25 is to identify three individuals, Mr. Joe Loyer,

1 Dr. Obed Odoemelam and in this instance, and I'll  
2 explain why I'm doing this, I'm going to ask to  
3 also identify Mr. James Reede, because he's very  
4 familiar with the housekeeping aspects of this  
5 particular issue and will probably be helpful  
6 simply as a fact witness on when material was  
7 received or in what order.

8 So, could I ask that those three  
9 witnesses be sworn?

10 Whereupon,

11 JOSEPH LOYER, OBED ODOEMELAM, JAMES REEDE  
12 were called as witnesses herein, and after first  
13 having been duly sworn, were examined and  
14 testified as follows:

15 MR. ABELSON: For purposes of staff's  
16 position on this issue we have submitted our  
17 entire position, both in the FSA and written and  
18 response testimony that has been filed subsequent  
19 to that.

20 So I could go through the credentials of  
21 the witnesses, but basically we are recommending  
22 the approval of the project with regard to air  
23 quality. We have no issues with regard to the  
24 position that the applicant is in at this moment  
25 on that issue. And our witnesses are available

1 for cross-examination.

2 HEARING OFFICER SHEAN: All right, why  
3 don't we just determine first of all whether  
4 they're -- let's see, since Mr. Reede is not going  
5 to be testifying as an expert --

6 MR. ABELSON: Just on the status of --

7 HEARING OFFICER SHEAN: -- we'll have  
8 the two other witnesses. Is there any --

9 MR. PERKINS: There is no objection to  
10 the other two witnesses being qualified to testify  
11 as experts. The Commission has materials to  
12 determine just how terrific they are, but they are  
13 clearly qualified to testify. I have no  
14 objection.

15 HEARING OFFICER SHEAN: All right.

16 MR. ABELSON: Thank you.

17 HEARING OFFICER SHEAN: Then they're  
18 qualified, thank you.

19 PRESIDING MEMBER PERNELL: I don't know  
20 about terrific, but --

21 (Laughter.)

22 PRESIDING MEMBER PERNELL: Just kidding.

23 HEARING OFFICER SHEAN: All right. So  
24 is there objection to the admission of the air  
25 quality testimony the staff has described by Mr.

1       Abelson?

2               MR. ABELSON:  Let me be absolutely clear  
3       with Mr. Reede here.  I've identified three  
4       documents that I believe contain our position on  
5       that, the FSA, the direct written and the direct  
6       response.  Mr. Reede, is there any other part of  
7       our testimony that needs to be in the record to be  
8       complete?

9               MR. REEDE:  To the best of my knowledge  
10       there's no other additional information from the  
11       California Energy Commission.  We do, however,  
12       refer to information from the South Coast Air  
13       Quality Management District that was provided to  
14       us in the development of our staff direct written  
15       testimony and staff's response to direct written  
16       testimony.

17              HEARING OFFICER SHEAN:  Okay, and as  
18       soon as we --

19              MR. REEDE:  Both of those documents were  
20       docketed into the record on January 22nd and  
21       January 16th.  And they refer both to emission  
22       offsets and to the expiration of the air quality  
23       permit for units 1 and 2, respectively.

24              HEARING OFFICER SHEAN:  Is there  
25       objection to admission of the three major items

1 and the two follow-up?

2 MR. PERKINS: I'm sorry that I'm unable,  
3 from that description, to tell what we're talking  
4 about. Is it possible I could wander over and  
5 look at what Mr. Reede's got?

6 MR. REEDE: Yes. The first document  
7 that I'm referring to is January 16th, an email  
8 from Ken Coats of South Coast Air Quality  
9 Management District, entitled, ESPR emissions  
10 offset, that was served on the parties.

11 The second is the plan and reissuance  
12 letter for the El Segundo Power Redevelopment  
13 project, referring to the rule 209 compliance  
14 program showing that units -- boiler units 1 and 2  
15 were removed from service on December 31st of this  
16 year.

17 MR. PERKINS: No objection to either of  
18 those documents.

19 MR. MCKINSEY: I would indicate that the  
20 document that's being referred to as the January  
21 16th is a cover transmission for what is a January  
22 1st letter from the South Coast Air Quality  
23 Management District to Mr. Steven Obadashian at El  
24 Segundo Power II LLC. And -- office. The actual  
25 document is a January 1st letter from the South

1 Coast Air Quality Management District.

2 MR. PERKINS: Actually I think there's  
3 two documents there, John, if you want to be --  
4 I'm mean there's the cover letter and then there's  
5 two inside if you want to be real precise.

6 MR. McKINSEY: Yeah, the third document  
7 that's contained within the first two is the  
8 actual change to the air permit, itself, as issued  
9 by the South Coast Air Quality Management  
10 District.

11 HEARING OFFICER SHEAN: Okay, so as to  
12 the three major documents and now these two  
13 documents with two other underlaying them, is  
14 there, in the absence of objection they will be  
15 admitted into evidence.

16 I guess the last --

17 MR. PERKINS: I'm sorry, --

18 HEARING OFFICER SHEAN: We let all that  
19 in.

20 MR. PERKINS: -- three major documents,  
21 are they the -- I got the two late ones, what are  
22 the three major ones?

23 MR. ABELSON: The FSA, the written and  
24 the response.

25 MR. PERKINS: Oh -- oh, fine. No



1 objection to those.

2 HEARING OFFICER SHEAN: Okay. And the  
3 last thing I think we need to get in before I  
4 think you proceed is the South Coast Air Quality  
5 Management District's final determination of  
6 compliance.

7 MR. PERKINS: No objection to the FDOC.

8 MR. MCKINSEY: I would point out it's  
9 already -- we've already entered it, as well.  
10 It's already in testimony and it's been described  
11 as the FDOC issued on February 14, 2002.

12 HEARING OFFICER SHEAN: Okay. Was that  
13 in your list then?

14 MR. MCKINSEY: Yes.

15 HEARING OFFICER SHEAN: Okay. We'll  
16 just reaffirm that the FDOC is in.

17 All right, with that we probably have  
18 a -- did you want to make an oral direct  
19 presentation by the staff?

20 MR. ABELSON: Actually I don't. Our  
21 staff is positioned to summarize; we are  
22 recommending approval of the project. We believe  
23 it now complies both with all applicable LORS and  
24 with all requirements under the California  
25 Environmental Quality Act, and are recommending

1 approval as regards to air quality.

2 HEARING OFFICER SHEAN: Okay. The show  
3 is yours, Mr. Perkins.

4 MR. PERKINS: I am going to stand up for  
5 this --

6 HEARING OFFICER SHEAN: Sure.

7 MR. PERKINS: -- because I want to use  
8 this visual aid.

9 (Pause.)

10 MR. PERKINS: So this is a peculiar --

11 HEARING OFFICER SHEAN: I don't mean to  
12 yo-yo this, but maybe we should get your direct  
13 testimony in, too, and that way you have the  
14 entirety of the record. Would you like to do  
15 that?

16 MR. PERKINS: We can do that if you  
17 want. That's a little unusual, but this is a  
18 little unusual that applicant and staff agree and  
19 somebody still wants to pick up some dust, if  
20 you'll pardon the pun.

21 HEARING OFFICER SHEAN: It's not the  
22 first time that's happened.

23 MR. PERKINS: Well, that's fine. So let  
24 me offer in evidence the following things.

25 There's direct written testimony of the City of El

1       Segundo and of the City of Manhattan Beach.

2       There's direct written testimony of Nick  
3       Nickelson. There's direct testimony of three  
4       people which we filed, Mr. Ochs, Ms. Murphy and  
5       myself.

6               There's also rebuttal testimony by me.

7       And there are some documents referred to in those  
8       written testimonies which I can itemize for you if  
9       you wish. And that, I think, -- anybody know of  
10      something else -- that, I think, is the direct  
11      evidence, so to speak, including some rebuttal,  
12      that would be offered before we start to talk.

13      But we all would like to talk at some point, too.

14      It seems to me that ought to take place after we  
15      cross these folks, though.

16              HEARING OFFICER SHEAN: You at least  
17      have the live witness and Mr. Perkins and Mr.  
18      Nickelson. Do you have objection to the City of  
19      El Segundo and City of Manhattan Beach material,  
20      since they're not here?

21              MR. REEDE: The City of Manhattan Beach  
22      is present, Hearing Officer Shean.

23              HEARING OFFICER SHEAN: All right. Any  
24      objection to those offered by -- all right, in the  
25      absence of objection then, the testimony

1 enumerated by Intervenor Robert Perkins is  
2 admitted.

3 MR. PERKINS: So to summarize what we're  
4 about and why we are in this position, it seems to  
5 me, and I don't pretend to represent any of the  
6 other intervenors, but I think that they have  
7 somewhat similar positions, so you can listen to  
8 them telling the differences. But you will get a  
9 rough notion of what we all think, I think, if you  
10 hear this.

11 It seems to me that this plant is going  
12 to unnecessarily increase air pollution in the  
13 beach area. And that that is a health concern  
14 which this Energy Commission has the power and  
15 duty to address regardless of what the AQMD wants  
16 to do about its rules and regulations.

17 It seems to me further that the AQMD, I  
18 don't pretend to speak for them, but that some of  
19 their determination is at least questionable, and  
20 may be wrong, in that credits were granted which  
21 shouldn't have been at all. And that even if they  
22 were granted, nobody has paid sufficient attention  
23 to the local nature of the pollution problem, that  
24 is the South Coast Air Quality Management District  
25 is a great big district, and it's got lots of

1 problems.

2 And one of the ways it alleviates it's  
3 lots of problems is through a credit system which  
4 I presume you have some familiarity with, probably  
5 more than I do, and certainly these experts do.  
6 And so it is trying to solve an areawide problem,  
7 but it should not be -- you should not be,  
8 whatever it should be doing, you should not be  
9 creating a local problem even if there's technical  
10 compliance with the areawide concerns of the South  
11 Coast Air Quality Management District.

12 A local health problem is what I'm  
13 basically concerned about. And we're going to  
14 focus on pollutants which this power plant will  
15 significantly increase, and which it will cause  
16 violations and/or add to existing violations of  
17 laws, applicable laws, to the health detriment of  
18 the locals in violation of the Health and Safety  
19 Code which governs all of us.

20 And in particular, I'm going to talk  
21 about PM10, so I'm going to ask about PM10. I'm  
22 not even going to bother very much with the other  
23 pollutants at this plant, but principally with  
24 PM10.

25 So for me that's about why I'm here.

1 I'm here to ask you folks to see to it that before  
2 this plant is approved, local measures to  
3 alleviate the local problem which it will cause,  
4 are taken.

5 So if that means don't license it,  
6 that's okay with me. But that's not necessarily  
7 what has to happen. But it should mean demand  
8 some local cleanup or some reduction in emission  
9 or both.

10 So that said, most of the evidence about  
11 the air pollution situation caused by these plants  
12 is known to Mr. Joseph Loyer, and I would like to  
13 ask Mr. Loyer some questions.

14 CROSS-EXAMINATION

15 BY MR. PERKINS:

16 Q Mr. Loyer, by whom are you employed?

17 MR. LOYER: The California Energy  
18 Commission.

19 MR. PERKINS: And as an air pollution  
20 specialist?

21 MR. LOYER: I'm a member of the air  
22 quality unit; I'm an associate mechanical  
23 engineer, and I have been designated as the air  
24 quality expert for this case.

25 MR. PERKINS: This case being the El

1       Segundo Power --

2               MR. LOYER:   The El Segundo Power .

3               MR. PERKINS:   And so you were, I take  
4       it, in that capacity assigned to evaluate the  
5       expected air quality impact of what are called  
6       criterion air pollutants for this project, is that  
7       right?

8               MR. LOYER:   That is correct.  
9       Technically it also includes VOC, which is  
10      actually not a criterion pollutant.

11              MR. PERKINS:   You might explain for all  
12      of us the difference between a criterion pollutant  
13      and a noncriterion pollutant.

14              MR. LOYER:   I can put it into simple  
15      context, the criteria pollutant in general is  
16      going to be either NOx, SOx -- I'm sorry, nitrogen  
17      oxides, sulfur dioxides, CO, PM10 and ozone.

18              MR. PERKINS:   And would it be fair to  
19      say that these are -- the thing that they all have  
20      in common is criteria pollutants are pollutants  
21      for which governments, state and/or national, have  
22      decided that they are a sufficient health risk  
23      that they have set up standards which they want  
24      you to obey, want us, as a state or region or  
25      whatever, to obey in keeping those under control?

1           MR. LOYER: That is correct; the federal  
2 government has set up the federal ambient air  
3 quality standards, and the California State  
4 government has set up the California ambient air  
5 quality standards for those criteria pollutants  
6 and others.

7           MR. PERKINS: And the purpose is to  
8 protect people's health and in particular,  
9 especially the health of those who are especially  
10 at risk, and that would include kids and old  
11 people like that, right?

12          MR. LOYER: The basis for the criteria  
13 pollutants are health based in nature.

14          MR. PERKINS: The applicant says, and I  
15 believe you have a copy of the applicant materials  
16 on air quality in front of you?

17          MR. LOYER: Hang on a second. I'm  
18 sorry, could you repeat it?

19          MR. PERKINS: Can you take a look at the  
20 application on air quality, page 5.1-11 and I'll  
21 read to you what that says, and I'm just going to  
22 ask you if you agree.

23          MR. LOYER: Okay.

24          MR. PERKINS: It says: Standards have  
25 been set for ozone, carbon monoxide, NO2, SO2,



1 sulfates, PM10, airborne lead, hydrogen sulfide  
2 and vinyl chloride at levels designed to protect  
3 the most sensitive members of the population,  
4 particularly children, the elderly and people who  
5 suffer from lung or heart diseases."

6 Do you agree with that statement?

7 MR. LOYER: That is essentially correct.

8 MR. PERKINS: Now, I'm sorry, did you  
9 say that you --

10 MR. LOYER: If I can --

11 MR. PERKINS: -- evaluated any --

12 MR. LOYER: If I can ask --

13 MR. PERKINS: -- pollutant --

14 MR. LOYER: -- real quick. Are we done  
15 with this AFC? It's causing me a little trouble  
16 over here.

17 MR. PERKINS: Oh, yeah (inaudible).

18 MR. LOYER: Yeah.

19 MR. PERKINS: Did you tell me you were  
20 also asked to evaluate any of the noncriterion  
21 pollutants?

22 MR. LOYER: No, I was not asked to  
23 evaluate noncriteria pollutants.

24 MR. PERKINS: There are other people in  
25 the office, the gentleman seated next to you, who

1 do that?

2 MR. LOYER: That is correct.

3 MR. PERKINS: And then you are the  
4 author of the air pollution section of the FSA?

5 MR. LOYER: The air quality section,  
6 yes.

7 MR. PERKINS: Air quality, right. And  
8 in doing that evaluation am I correct that you  
9 reviewed the material in the application?

10 MR. LOYER: As part of that assessment,  
11 yes.

12 MR. PERKINS: And you reviewed the  
13 material that came from the South Coast Air  
14 Quality Management District?

15 MR. LOYER: Yes, also as part of the  
16 assessment.

17 MR. PERKINS: Okay. And you assessed  
18 them hoping to protect the people's health, right?

19 MR. LOYER: Essentially I assess them in  
20 evaluating the CEQA evaluation. I'm sorry, didn't  
21 put that quite the right words, but --

22 MR. PERKINS: Okay, well, one  
23 requirement, a major requirement under CEQA is  
24 that the proposed plant complies with all of the  
25 applicable laws, ordinances and regulations?

1 MR. LOYER: Yes.

2 MR. PERKINS: Some people call those  
3 LORS, right?

4 MR. LOYER: That's correct.

5 MR. PERKINS: And if the plant were in  
6 violation of a LORS, then you wouldn't recommend  
7 its permitting unless something was done about  
8 that, right?

9 MR. LOYER: That's correct. If the  
10 plant was in violation of any LORS, we would  
11 recommend the plant come into compliance with  
12 LORS.

13 MR. PERKINS: Okay --

14 MR. LOYER: It's upside down.

15 (Pause.)

16 MR. PERKINS: Would it be possible to  
17 dim some light?

18 So this is from your FSA under the  
19 caption laws -- LORS, and it's actually from your  
20 colleagues' section, but the same section is cited  
21 in your portion as an applicable LORS, is it not?

22 MR. LOYER: That is correct.

23 MR. PERKINS: And that section says that  
24 no one shall discharge such quantities of air  
25 contaminants which cause injury, detriment,

1 nuisance or annoyance to any considerable number  
2 of persons or the public, or which endanger the  
3 comfort, repose, health or safety of any such  
4 persons or the public, or which cause or have an  
5 actual tendency -- well, we'll skip that. That's  
6 business and property. That's what it says,  
7 right?

8 MR. LOYER: That's correct.

9 MR. PERKINS: So it follows, I guess,  
10 that if you found, or if the Commission were to  
11 find that this plant would cause a detriment or  
12 injury to a considerable number of persons or the  
13 public, or if it were to endanger their comfort or  
14 health or safety, then that would be a violation  
15 of LORS, right?

16 MR. LOYER: We would consider that to be  
17 a significant impact in a broader scope of that  
18 definition and then we would insist --

19 MR. PERKINS: Move to strike as  
20 nonresponsive. The question is would that be a  
21 violation of this law.

22 MR. LOYER: That would be a violation of  
23 this state section code, yes.

24 MR. PERKINS: And this is one of the  
25 LORS?

1 MR. LOYER: Yes.

2 MR. PERKINS: Do you happen to recall  
3 how many people live within, say, six miles of the  
4 project?

5 MR. LOYER: Not off the top of my head,  
6 no, I'm sorry.

7 MR. PERKINS: Okay, --

8 MR. ABELSON: Mr. Perkins, an objection  
9 with regard to clarification, so we don't get  
10 information that's in the wrong place. There are  
11 two sections of the FSA, one on air quality and  
12 one on public health.

13 You're now quoting from the section, I  
14 believe, in the public health division?

15 MR. PERKINS: This particular quote?

16 MR. ABELSON: Yes.

17 MR. PERKINS: Well, the only reason I  
18 didn't quote the one that's in the FSA for air  
19 quality is there's a typo in it. The same text is  
20 there and the difference is that instead of saying  
21 considerable persons, it says considerate persons.

22 MR. ABELSON: That's fine. I just --  
23 the only point I'm making --

24 MR. PERKINS: So, --

25 MR. ABELSON: -- and, you know, I don't

1 intend to raise it very often is that there may be  
2 some questions that are actually more appropriate  
3 for Mr. Odoemelum. I just want to be sure we're  
4 clear at that throughout.

5 MR. PERKINS: I understand. I'm sure  
6 that you or the witness can alert me when that  
7 comes up. That's fair enough.

8 All right, let's see here. I'll tell  
9 you how many there are, and this is found  
10 somewhere in the FSA and I'll look it up for you  
11 if you need, but it's 683,654 people residing  
12 within six miles of the project. That sound  
13 reasonable to you?

14 MR. LOYER: Sounds vaguely clear; it  
15 vaguely sounds like the number that I came up with  
16 at one particular point in time.

17 MR. PERKINS: Okay. So, if it's  
18 anything close to that you would agree that that's  
19 what we would call a considerable number of  
20 people?

21 MR. LOYER: Yes, at the time that I  
22 determined that number I was looking at  
23 significant impact of PM10 and SO2 on those  
24 people. So I wanted to determine how many people  
25 were being exposed to the PM10 and SO2 emissions.

1           MR. PERKINS:  Actually the number being  
2       exposed is a larger number than that, because in  
3       addition to the residents within six miles,  
4       there's the people that come and go from the  
5       airport?

6           MR. LOYER:  Well, you could try to make  
7       that argument.  However, I think it ought to  
8       equally be argued that not everybody in El Segundo  
9       City or in that six-mile radius is going to be  
10      exposed to those levels.

11          And so I didn't feel that it was a  
12      reasonable argument to make that simply saying  
13      that the populations of these cities would be  
14      exposed to these levels.  Plus, if you actually  
15      have people coming and going within a polluted  
16      area, their exposure time is significantly less  
17      than those that live there.

18          MR. PERKINS:  So that they --

19          MR. LOYER:  So they are not in as much  
20      danger.

21          MR. PERKINS:  Right, they will be  
22      exposed, but not for 24 straight hours?

23          MR. LOYER:  That's right.

24          MR. PERKINS:  And the same thing would  
25      be true, for example, the guys that work at

1 Standard Oil -- Chevron, pardon me.

2 MR. LOYER: For Chevron oilfield we're  
3 talking about people that will probably be exposed  
4 that -- well, probably -- could potentially be  
5 exposed anywhere from on an eight to ten hour  
6 basis; so it won't be 24 hours, but it will be  
7 significantly more than somebody who's merely  
8 traveling through the area.

9 So I considered them to be a significant  
10 population to take into consideration, as well.

11 MR. PERKINS: And, of course, there's  
12 the people who ride down PCH -- excuse me, Vista  
13 del Mar immediately to the west of the power  
14 plant, you know, 30 feet of it. Those guys are  
15 also getting some exposure for a short period of  
16 time, but they're real close, huh?

17 MR. LOYER: The closer you are to that  
18 power plant, the fenceline say, you're not going  
19 to see the PM10 emission impact. So the PM10  
20 emission impact will be lofted, and then will land  
21 some distance away. So they actually won't get as  
22 much.

23 MR. PERKINS: Okay. And the people on  
24 the beach, short time, lots of people.

25 MR. LOYER: Actually --



1 MR. PERKINS: We know there's millions  
2 of people on these beaches every year.

3 MR. LOYER: -- the wind will blow  
4 generally inland, so they probably won't be  
5 exposed at all.

6 MR. PERKINS: Well, actually, speaking  
7 as a resident, the wind blows to sea in the early  
8 morning hours and inland during the --

9 MR. LOYER: Diurnal --

10 MR. PERKINS: -- yeah, okay.

11 MR. LOYER: Yes.

12 MR. PERKINS: Sometimes inland, sometime  
13 out to sea, sometimes up and down the coast.

14 MR. LOYER: Yeah. Generally it blows  
15 inland. It can blow out. Diurnal winds blow out  
16 to sea. And sometimes you can get north/south  
17 winds as well.

18 MR. PERKINS: You're aware, for example,  
19 that the airplanes at --

20 MR. LOYER: LAX.

21 MR. PERKINS: -- LAX land backwards, so  
22 to speak? They land from the sea all night?

23 MR. LOYER: Yeah.

24 MR. PERKINS: Okay. All night meaning  
25 starting about midnight.

1 MR. LOYER: Right.

2 MR. PERKINS: So, anyway, this plant  
3 does discharge some of each of the air pollutants  
4 which you previously named, doesn't it?

5 MR. LOYER: That's correct.

6 MR. PERKINS: And now some of those are  
7 known carcinogens, are they not?

8 MR. LOYER: PM10 has been known to be --  
9 some PM10 has been known to be a carcinogen.  
10 Whether this plant puts out known carcinogens is  
11 outside of my area of expertise.

12 MR. PERKINS: But you are aware that  
13 some PM10s, at least, are known carcinogens?

14 MR. LOYER: Yes. Whether this plant  
15 puts them out is another question.

16 MR. PERKINS: All right. And there are  
17 other health hazards from PM10s, right?

18 MR. LOYER: Yes.

19 MR. PERKINS: Are any of the other  
20 criterion pollutants known carcinogens to the best  
21 of your knowledge? And you don't need to count if  
22 they're just a precursor.

23 MR. LOYER: I would have to defer to Dr.  
24 Obed.

25 MR. PERKINS: Not your field of

1 expertise, really, huh?

2 MR. LOYER: That's right.

3 MR. PERKINS: How about PM2.5s, are they  
4 a known carcinogen?

5 MR. LOYER: They have the potential to  
6 be a carcinogen. They also have the potential to  
7 cause asthma, but again that's slightly out of my  
8 area.

9 MR. PERKINS: You listed what you  
10 studied and I didn't hear you mention, and I don't  
11 see in your report anything about PM2.5s. Did you  
12 study PM2.5s?

13 MR. LOYER: I'm sorry?

14 MR. PERKINS: Did you analyze the  
15 pollution effects of PM2.5 on the population?

16 MR. LOYER: We assumed that all the PM  
17 coming out of the facility is PM10, and not PM2.5.

18 MR. PERKINS: Well, --

19 MR. LOYER: In this particular instance.

20 MR. PERKINS: -- every PM2.5 has got to  
21 be a PM10, right?

22 MR. LOYER: That is correct.

23 MR. PERKINS: And the reason -- if  
24 there's anybody here who doesn't know that is that  
25 the name means a particle size smaller than 10,

1       what, microns?

2               MR. LOYER:  Microns.

3               MR. PERKINS:  Or smaller than 2.5  
4       microns, so --

5               MR. LOYER:  Right.

6               MR. PERKINS:  -- if you're smaller than  
7       2.5 you're usually smaller than 10.

8               MR. LOYER:  Right.

9               MR. PERKINS:  But you did not do a  
10       separate study to see what the PM2.5 polluting  
11       rate for this plant is, did you?

12              MR. LOYER:  No, I did not.

13              MR. PERKINS:  In fact, the applicant  
14       provided no information about how much PM2.5 it's  
15       going to be putting out, is that correct?

16              MR. LOYER:  Yeah, they did not provide  
17       that information.

18              MR. PERKINS:  Those are, at the moment,  
19       technically a noncriterion pollutant, is that  
20       correct?

21              MR. LOYER:  They are in a quasi-state at  
22       the moment.

23              MR. PERKINS:  The deal is that the EPA  
24       has got regulations for 2.5s because they're so  
25       dangerous, but a court has put those regulations

1 on hold at the moment so you can't enforce them,  
2 is that right?

3 MR. LOYER: Actually I believe the court  
4 case you're referring to has been resolved. That  
5 standard is enacted. The process that must be  
6 gone through is that first a area designation must  
7 be established. In other words, a background  
8 concentrations have to be measured and established  
9 to determine whether an area is in violation of  
10 the PM2.5 standard.

11 Then a PM2.5 state implementation plan  
12 must be put together; and rules and regulations  
13 either proposed or adopted to address that  
14 standard.

15 At this point we haven't gotten to the  
16 position yet where EPA is ready to ARB, for that  
17 matter, I'm sorry, the California Air Resources  
18 Board, has made a determination of whether any  
19 area's in attainment or nonattainment.

20 MR. PERKINS: I'm told that there's a  
21 finding in the Morro -- are you familiar with the  
22 Morro Bay case?

23 MR. LOYER: More or less.

24 MR. PERKINS: I'm told that in the Morro  
25 Bay case it was shown that all gas turbine

1 conditions are PM2.5s. Do you know anything about  
2 that?

3 MR. LOYER: Yes.

4 MR. PERKINS: Is that right?

5 MR. LOYER: When we do an assessment for  
6 PM2.5, we assume that all the PM10 coming out of  
7 the turbine is 2.5. However, --

8 MR. PERKINS: But in any -- okay.

9 MR. LOYER: -- it probably is more along  
10 the lines of something like 80 percent are 2.5 and  
11 20 percent are slightly larger.

12 MR. PERKINS: Eighty percent 2.5 is --

13 MR. LOYER: Yeah, that's some of the  
14 studies that we've been finding have been  
15 indicating that to us. But we would, in any case,  
16 when we do address 2.5 in the standard that we  
17 have, we will assume that all the plant's  
18 emissions are 2.5.

19 MR. PERKINS: So I don't want to berate  
20 you about this, but the long and the short of it  
21 is there's no criterion for PM2.5, so you did not  
22 study PM2.5s on this plant?

23 MR. LOYER: That's correct. We felt it  
24 was premature for this case.

25 MR. PERKINS: Now in the FSA, and if you

1 want to look at your text, but I'll give you -- I  
2 got a slide for this --

3 MR. LOYER: Okay.

4 MR. PERKINS: -- you can read up there.  
5 On page 4.1-52 you say: Staff considers the  
6 contribution of the -- from ESPR, excuse me, from  
7 El Segundo Power R -- to the ongoing exceedance of  
8 the California PM10 ambient air standards to be  
9 significant to the health and safety of the  
10 workers of the Chevron Refinery, the citizens of  
11 the City of Hawthorne, and the citizens of the  
12 City of Manhattan Beach.

13 You stand by that testimony?

14 MR. LOYER: At that particular time,  
15 absolutely.

16 MR. PERKINS: Do you no longer stand by  
17 that?

18 MR. LOYER: No, I do not.

19 MR. PERKINS: Okay. And is that because  
20 of the mitigation that's been provided?

21 MR. LOYER: That is correct. It is my  
22 opinion that this project is fully mitigated for  
23 PM10 emission impacts.

24 MR. PERKINS: Here's that number,  
25 683,654, by the way.

1 MR. LOYER: Oh, very good.

2 MR. PERKINS: Now, that's kind of fuzzy,  
3 isn't it?

4 MR. LOYER: That's okay.

5 PRESIDING MEMBER PERNELL: Could you  
6 move it up?

7 MR. PERKINS: Sure.

8 PRESIDING MEMBER PERNELL: Are you done  
9 with the --

10 MR. PERKINS: Actually I would like  
11 people to look at both of these together because  
12 the question, of course, is is there any injury,  
13 detriment to the public or any danger to the  
14 health or safety of such persons or the public.

15 So here's what the staff thought in  
16 August. And I don't know why I can't make that be  
17 clearer. At the time of writing the FSA.

18 So the last sentence in this thing is,  
19 the last two: The District does not currently  
20 have an attainment plan to comply with the  
21 California PM10 ambient air quality standards, is  
22 not required to develop one, only to make  
23 reasonable progress. Therefore, staff considers  
24 the contribution from ESPR to the ongoing  
25 exceedance of the California PM10 ambient air



1       quality standards to be significant to the health  
2       and the safety of the workers of the Chevron  
3       Refinery, the citizens of the City of Manhattan  
4       Beach, and the citizens of the City of Hawthorne.

5                You didn't mention it but at the time  
6       you also thought it would be --

7                MR. LOYER:  El Segundo, as well.

8                MR. PERKINS:  -- true of El Segundo, as  
9       well, right?

10               MR. LOYER:  That's right.  Minor  
11       omission on my part, my apologies.

12               MR. PERKINS:  Yeah.  We were told that  
13       story about a battery to the one starfish  
14       yesterday.  I guess it did that, if you lived at  
15       El Segundo it might not be such a minor omission.

16               MR. LOYER:  Yeah, this is true.

17               MR. PERKINS:  I see the point.  And the  
18       only thing that has changed your opinion from  
19       believing that this is true, that the ESPR  
20       pollutants are significant to the health and  
21       safety of these people is the mitigation furnished  
22       since the date of this report?

23               MR. LOYER:  That is correct.

24               MR. PERKINS:  Let's talk a little bit  
25       about that ongoing exceedance that's referred to

1 in here.

2 There is a criterion in California for  
3 PM10, and I've got a slide that sets it out, I  
4 think.

5 MR. LOYER: That's the modeled impacts.

6 MR. PERKINS: Right, but -- it is the  
7 modeled impacts, and we'll use it for some other  
8 stuff, but let's see here, doesn't that have the  
9 state standard set on it for PM10s at 50 mcg/cubic  
10 meter in any 24-hour period, and 30 on an annual  
11 geometric mean --

12 MR. LOYER: That's correct.

13 MR. PERKINS: Right?

14 MR. LOYER: That's correct.

15 MR. PERKINS: And that has been, well,  
16 first an order to comply with the state health  
17 standards, the state PM10 standard, the air has to  
18 be within both of those, does it not? It's got to  
19 meet both?

20 MR. LOYER: For the state, it being the  
21 more restrictive, it would have to meet the  
22 state's. If it meets the state's, by definition  
23 it would meet the federal --

24 MR. PERKINS: Right, we got it cross-  
25 purposes slightly there. There are two state

1 standards, right? One on the 24-hour basis, and  
2 one on an annual basis?

3 MR. LOYER: Yes.

4 MR. PERKINS: And it needs to meet both  
5 state standards?

6 MR. LOYER: Well, the way that they  
7 would look at this is they would look at each  
8 standard individually. To say generally that it  
9 is in attainment for PM10 in general, yes, that  
10 infers that it meets both the 24 hour and ambient.

11 MR. PERKINS: And if you violate the  
12 standard for the year, then you've violated the  
13 standard, right?

14 MR. LOYER: You violate the annual  
15 standard --

16 MR. PERKINS: If you violate the annual  
17 standard. And if you violate it for a day then  
18 you've violated the --

19 MR. LOYER: The daily standard.

20 MR. PERKINS: -- daily standard?

21 MR. LOYER: Yeah.

22 MR. PERKINS: Where's the closest  
23 monitoring station involved in this?

24 MR. LOYER: I believe this one is  
25 Hawthorne.

1 MR. PERKINS: Um-hum, okay. We'll call  
2 it Hawthorne, I think there's been some discussion  
3 about whether it's really in the City of  
4 Hawthorne, but that --

5 MR. LOYER: It's true.

6 MR. PERKINS: -- it's commonly called  
7 the Hawthorne monitoring station, right?

8 MR. LOYER: That's true.

9 MR. PERKINS: In your staff's response  
10 to air quality direct testimony, which is in  
11 evidence on page 1 of that, -- you might want to  
12 pull that out -- you say -- looking at the  
13 response, not necessarily Mr. Ochs' testimony, the  
14 project emissions, themselves, will not cause an  
15 exceedance of the ambient air quality standards  
16 referred to as a direct impact.

17 And does that mean that if they did  
18 cause an exceedance, themselves, that would be a  
19 direct impact?

20 MR. LOYER: That's the intention, yes.

21 MR. PERKINS: However, you go on to say,  
22 in combination with the measured background of  
23 that Hawthorne monitoring station, they will  
24 contribute to an existing exceedance of the PM10  
25 ambient air quality standards, state only?

1 MR. LOYER: That's correct.

2 MR. PERKINS: Okay. And to some extent  
3 those existing exceedances are shown by the table  
4 whose number I forget up above, it shows -- it's a  
5 worst case kind of analysis that was provided by  
6 the applicant. It's what they call -- they use  
7 the highest background concentration that they  
8 anticipate of 79 mcg/cubic meter and get an 88  
9 combined with their own input, right?

10 MR. LOYER: That is correct.

11 MR. PERKINS: Frequently the background  
12 concentration is less than 79, though, isn't it?

13 MR. LOYER: I would imagine so, yes.

14 Not looking at the information directly, --

15 MR. PERKINS: I'll help you with that.

16 MR. LOYER: -- which we do have in  
17 testimony --

18 MR. PERKINS: We do have that, that's  
19 correct. Then continuing with what you had to say  
20 in your direct testimony, that those -- what you  
21 meant, I guess, here is that the 8.6, which is the  
22 maximum project impact that you calculate?

23 MR. LOYER: Yes.

24 MR. PERKINS: Or more accurately --

25 MR. LOYER: The applicant calculated.

1 MR. PERKINS: -- applicant calculated  
2 and you concur with their calculations, right?

3 MR. LOYER: That's correct.

4 MR. PERKINS: That 8.6 adds to  
5 whatever's out there, and that makes it worse,  
6 have I got that right?

7 MR. LOYER: In layman terms, absolutely.

8 MR. PERKINS: Right. The deal with  
9 carcinogens -- well, maybe you don't know this, I  
10 can ask your colleague, but I'll try you first.

11 MR. LOYER: Okay.

12 MR. PERKINS: The deal with carcinogens  
13 is every little bit hurts, right?

14 MR. LOYER: And I will defer to Dr.  
15 Obed.

16 MR. PERKINS: Okay. I'll say it in a  
17 slightly more technical way. There is no minimum  
18 safe exposure to a carcinogen.

19 MR. LOYER: No, I will defer --

20 MR. PERKINS: You don't know about that  
21 one, either?

22 MR. LOYER: -- I will definitely defer  
23 to Dr. Obed.

24 MR. PERKINS: We'll wait and talk to him  
25 about that. So the distinction between a direct

1 impact and a cumulative impact is if they're  
2 already over the line --

3 MR. REEDE: Excuse me, I'm going to have  
4 to object because he's asking to compare apples to  
5 oranges, because staff modeled the project impacts  
6 and they differ from the project impacts that were  
7 in the AFC.

8 So if he's asking staff to reply to what  
9 the applicant provided, we have provided our own  
10 modeling information that differs greatly from  
11 this table 5.2.6.

12 In our air quality table 14 we did our  
13 own independent assessment, and that does not  
14 reflect our testimony what is being shown.

15 (Off-the-record conversations.)

16 MR. PERKINS: I'd like, just for form,  
17 so it doesn't happen again, to object to the non-  
18 lawyer who's been sworn as a witness stepping in  
19 with what he thinks is the right answer or way to  
20 solve problems, and calling it an objection.

21 But this particular comment I guess  
22 I'll, you know, I'm interested in hearing it so  
23 we'll take a look at it.

24 What page are you on, James?

25 MR. REEDE: It's air quality table 16 on

1 page 4.1-41.

2 MR. PERKINS: All right, and what is the  
3 maximum impact in that table?

4 MR. McKINSEY: I would like to -- I  
5 think I heard an objection, and I didn't hear a  
6 ruling on it. And I think Mr. Abelson wants to  
7 hear about it.

8 MR. PERKINS: Oh, sure.

9 (Laughter.)

10 MR. ABELSON: I'm sure I do.

11 HEARING OFFICER SHEAN: All right.  
12 First of all, I don't -- perhaps I just did not  
13 hear it that there was a question that asked the  
14 witness to confirm through the applicant's data  
15 the staff response presented at the lower portion  
16 of the page in the graphic.

17 So, at least my opinion was that that  
18 objection, if you will, was premature based upon  
19 the fact that that had not occurred.

20 So, am I correct in that, that that was  
21 not what your question went to?

22 MR. PERKINS: I'm not even sure anymore  
23 to be honest with you.

24 HEARING OFFICER SHEAN: Okay.

25 MR. LOYER: Maybe I could clarify --



1 MR. MCKINSEY: I was raising the point  
2 that --

3 MR. LOYER: -- what this table is.

4 MR. MCKINSEY: -- he also made an  
5 objection to Mr. Reede objecting in Mr. Abelson's  
6 absence, and that's what I wanted to make sure Mr.  
7 Abelson's aware of, since it's also his witness  
8 and he wasn't here to hear it.

9 MR. ABELSON: Let me just say two  
10 things. Number one, nature calls. We had a  
11 comment yesterday that waste waits for no one, and  
12 so that's what happened. My apologies for  
13 stepping out of the room.

14 Mr. Reede is a marvelous attorney, but I  
15 would like to reserve the right to do most of the  
16 objections as we go forward from here.

17 Why don't we just track on and see where  
18 we're at, and if there's still a problem I'll try  
19 to voice that.

20 MR. PERKINS: Mr. Reede has called our  
21 attention to page 4.1-41 of the FSA air quality  
22 table 16, and so I'll ask this witness, you've got  
23 that, haven't you?

24 MR. LOYER: Oh, yeah, right here.

25 MR. PERKINS: Okay. What does the staff

1 think is the maximum impact for PM10 on a 24-hour  
2 basis?

3 MR. LOYER: The staff has it as 9.4.

4 MR. PERKINS: It's a little bit worse?

5 MR. LOYER: A little bit worse.

6 MR. PERKINS: But the same idea?

7 MR. LOYER: Same idea.

8 MR. PERKINS: Now, continuing with  
9 looking at your direct testimony you say that the  
10 addition of the project emissions will contribute  
11 to the existing exceedance of the PM10 ambient air  
12 quality standards, state only. And this is  
13 referred to as a cumulative impact. And that's as  
14 distinguished from if they had caused it to go  
15 over the line, themselves?

16 MR. LOYER: That's correct, the  
17 difference between a direct and cumulative.

18 MR. PERKINS: And the key here is that  
19 it's already over the line. They may make it a  
20 little worse but they aren't breaking the 50 --

21 MR. LOYER: Microgram --

22 MR. PERKINS: -- microgram --

23 MR. LOYER: -- per cubic meter.

24 MR. PERKINS: Yeah, yeah, line, right?

25 MR. LOYER: That's correct.

1 MR. PERKINS: Okay.

2 MR. LOYER: In fact, you know, most  
3 power plants are natural gas powered won't ever  
4 come anywhere near it.

5 MR. PERKINS: And because this is a  
6 cumulative impact, it is required to mitigate the  
7 impact to less than significant levels?

8 MR. LOYER: That is correct.

9 MR. PERKINS: But if it were a direct  
10 impact they got to fix it, right?

11 MR. LOYER: If somehow some power plant,  
12 natural gas fired power plant, managed to break  
13 the 50 mcg/cubic meter line, yeah, I don't believe  
14 there is any mitigation that could possibly undo  
15 that.

16 MR. PERKINS: That's interesting.

17 MR. LOYER: So we would insist that they  
18 fix whatever they are proposing.

19 MR. PERKINS: Fix meaning reduce their  
20 own emissions somehow?

21 MR. LOYER: Absolutely. It would also  
22 break several of the federal -- there's things  
23 called PSD increment. It would go far beyond the  
24 increment.

25 MR. PERKINS: And once again I'm going

1 to refer you to the application, not because you  
2 wrote it but to see if you agree with it.

3 On page 5.2-30, I can read this to you  
4 and you can decide whether you need to look at it  
5 in more detail, yourself.

6 MR. LOYER: Okay. This is quite a  
7 balancing act over here.

8 MR. PERKINS: Yeah, I hear you. Page  
9 5.2-30, it says: Project emissions must not cause  
10 an exceedance of any AAQS. Do you agree with  
11 that?

12 MR. LOYER: If they cause or contribute  
13 to an exceedance of the ambient air quality  
14 standard we would consider them significant and  
15 thus insist upon mitigation.

16 MR. PERKINS: All right. I want to  
17 change slides. Let's look at figure 9 from your  
18 rebuttal testimony. You'll excuse me for using  
19 half of these at a time. I'm on what they call a  
20 limited budget. I'm retired. I went down to  
21 Kinko's today and made these.

22 MR. LOYER: I appreciate that you did,  
23 actually; it makes it much easier.

24 MR. PERKINS: They're about 50 cents a  
25 picture this way, and a buck a picture if I put

1 each one on its own page.

2 So anyway, we were looking at air  
3 quality figure 9. This is from your testimony,  
4 right?

5 MR. LOYER: This is the historic 24-hour  
6 PM10 measurements made at the Hawthorne monitoring  
7 station. It indicates from 1989 to 2000.

8 MR. PERKINS: All right. And it shows  
9 the number of times that the PM10s at that station  
10 have exceeded the state standard for, gee, a long  
11 time, ever since 1989, huh?

12 MR. LOYER: That's correct.

13 MR. PERKINS: And since, oh, I don't  
14 know, 1992, say?

15 MR. LOYER: Let me see, let me find it  
16 here. Yeah, there it is. I've got it.

17 MR. PERKINS: The number of exceedances,  
18 measured exceedances is somewhere around, I don't  
19 know, eight, something like that, per year; goes  
20 up and down. Somewhere around there?

21 MR. LOYER: Yeah, it does fluctuate. It  
22 has been significantly reduced from the pre-  
23 1992 --

24 MR. PERKINS: Right.

25 MR. LOYER: -- dates.

1           MR. PERKINS: The eight measurements of  
2 violation, that doesn't actually mean it only  
3 violated eight time, because they only measure  
4 once every six days, right?

5           MR. LOYER: The California Air Resources  
6 Board takes that into consideration when they  
7 determine how many times that the standard has  
8 been violated in a given year.

9           But, you're right, the PM10 standard is  
10 measured once every six days.

11          MR. PERKINS: So if the average for the  
12 last eight years up there is eight per year, and I  
13 haven't done the arithmetic, I confess, but I see  
14 that the high appears to be 11, and the low  
15 appears to be five.

16          MR. LOYER: More like three, but, yeah,  
17 go ahead, you're good.

18          MR. PERKINS: Somewhere around there.

19          MR. LOYER: I think in '97 there.

20          MR. PERKINS: Is this the one you think?

21          MR. LOYER: Yeah.

22          MR. PERKINS: Anyway, if the average  
23 were eight, somewhere around six times eight, once  
24 every six days measures, somewhere around six  
25 times eight is the number of expected violations,

1 and that's the 24-hour standard, right?

2 MR. LOYER: The California Air Resources  
3 Board would make that, call it calculated or  
4 expected exceedances. That is their upper bound.

5 MR. PERKINS: Whatever that means.  
6 Upper bound of what?

7 MR. LOYER: That's the upper bound of  
8 what they expect to find if they were able to  
9 measure PM10 on a 24-hour basis ongoing  
10 continuously.

11 MR. PERKINS: You'd think that that  
12 would be sort of the -- I don't mean to argue  
13 about this, but you'd think that'd be sort of the  
14 average of what you'd find. That some years, if  
15 you monitoring, not suppose that's exactly,  
16 sometimes you'd get exactly six times eight of 48;  
17 sometimes you'd get 55; sometimes you'd get 43. I  
18 don't know. Am I wrong about that?

19 MR. LOYER: Maybe we're talking cross-  
20 terms. I think what you were meaning to say is  
21 that in a given year if we have eight through any  
22 one of these years, that the Air Resources Board  
23 would have put an upper bound of what they  
24 expected to find, a calculated value of PM10  
25 violations. They would multiply that eight by

1 six. And that's what they would expect --

2 MR. PERKINS: Okay, that's --

3 MR. LOYER: -- for that given year.

4 MR. PERKINS: -- what they would expect  
5 for that year.

6 MR. LOYER: Right.

7 MR. PERKINS: But when you say an upper  
8 bound, you don't mean that it couldn't be worse?  
9 They might have gotten lucky and caught the days  
10 when it was in compliance?

11 MR. LOYER: Oh, no, that's not how it's  
12 monitored. They expose the monitor continuously  
13 on the six days and they cap that exposure off.  
14 And then they analyze it.

15 MR. PERKINS: I see.

16 MR. LOYER: And so in theory they should  
17 capture it all.

18 MR. PERKINS: So anyway, what did you  
19 call it, the expected --

20 MR. LOYER: Expected --

21 MR. PERKINS: -- violations is --

22 MR. LOYER: -- maximum --

23 MR. PERKINS: -- about 50, something  
24 like that?

25 MR. LOYER: Yeah, that would be --



1 MR. PERKINS: But, --

2 MR. LOYER: -- reasonable upper --

3 MR. PERKINS: -- and I took a long time  
4 getting to this, but the point of that is that  
5 somewhere upwards of 300 days a year we don't  
6 currently violate that standard?

7 MR. LOYER: The 24-hour standard, yeah,  
8 that would be a reasonable conclusion to draw.

9 MR. PERKINS: But here's another  
10 reasonable conclusion I suggest to you. When  
11 you're below 50 you're not a whole heck of a lot  
12 below 50.

13 MR. LOYER: Well, I think we're talking  
14 about information not in evidence at this point.

15 MR. PERKINS: Um-hum.

16 MR. LOYER: The graph that I have here  
17 focuses on the highest PM10 measured and the  
18 number of exceedances. I didn't take a look at  
19 the lowest PM10 measured values at all. They  
20 weren't of any interest to me.

21 MR. PERKINS: All right, then, just let  
22 me give you an easier proposition. Some of the  
23 time, well, 300 days a year or more you would  
24 expect it to be somewhere between zero and 50  
25 mcg/cubic meter?

1           MR. LOYER: We would expect to find  
2       measurements at the Hawthorne monitoring stations  
3       that are below the state ambient air --

4           MR. PERKINS: That's the same thing --

5           MR. LOYER: -- quality standard.

6           MR. PERKINS: -- as between zero and 50,  
7       right?

8           MR. LOYER: Absolutely. Just putting it  
9       in more technical terms.

10          MR. PERKINS: I'll offer that it would  
11       surprise me if any of them were zero, but there's  
12       going to be some kind of a range, right?

13          MR. LOYER: You'd be very surprised at  
14       what you find at some of the most polluted areas.

15          MR. PERKINS: Okay. So, maybe some of  
16       them are zero. Some of them are going to be 10,  
17       some are going to be 20, some are going to be 30,  
18       some are going to be 40, some 45 and like that,  
19       right?

20          MR. LOYER: And the fact is that we  
21       don't have information in front of us.

22          MR. PERKINS: Yeah, but almost surely, I  
23       mean you know as a scientist, that almost surely  
24       if you're measuring between zero and 50 and you go  
25       over 50 once every, what's that, once a week or

1 so, and the rest of the time some it's going to be  
2 pretty damn close to 50?

3 MR. LOYER: If I can --

4 MR. PERKINS: Um-hum.

5 MR. LOYER: -- restate it? If I measure  
6 52 times out of the year, if I measure at a  
7 monitoring station eight times over the standard,  
8 then I can imagine that the rest of those  
9 measurements will be below the standard.

10 MR. PERKINS: Yeah, that's --

11 MR. LOYER: Same thing.

12 MR. PERKINS: Okay, but here's what,  
13 okay, here's what I'm driving at. If the staff is  
14 right that the maximum impact from this power  
15 plant is 9.6 mcg/cubic meter, and if it's a day  
16 when the background is 42 or 43 or 44, '5, '6, '7,  
17 '8 or '9, that power plant is going to directly  
18 cause a violation of that standard, isn't it?

19 MR. LOYER: There is a statistically  
20 possible event.

21 MR. PERKINS: If the number is in the  
22 40s, if it's 41 or more, it's a statistically  
23 certain event, isn't it, if the -- on the day when  
24 the power plant has a maximum impact?

25 MR. LOYER: You have to consider that

1       you take in a lot of things into assumption when  
2       you say that sort of thing.  If I may put it in  
3       another way.

4               If we have a monitoring station that is  
5       sitting at this project's point of maximum point,  
6       which we don't, but if we do, and that area  
7       experiences a PM10 concentration level that is  
8       close to the standard, this project could, and I  
9       still emphasize even under those conditions, could  
10      push that reading up above the ambient air quality  
11      standard.

12             MR. PERKINS:  And the fact that you have  
13      a predicted worst place for the maximum impact,  
14      and as I recall it --

15             MR. LOYER:  Almost in the center of  
16      their --

17             MR. PERKINS:  -- it moves around  
18      actually, but for PM10, 24 hours, it's somewhere  
19      in the refinery, is that correct?

20             MR. LOYER:  That's where the model  
21      predicts it to be, yeah.

22             MR. PERKINS:  Yeah.  It kind of depends  
23      on what the winds are doing and stuff?

24             MR. LOYER:  Oh, absolutely.

25             MR. PERKINS:  Yeah.  The fact that you

1 don't have a monitoring station there doesn't in  
2 any way reduce the danger to the people that are  
3 walking around there, does it?

4 MR. LOYER: Well, the fact that we don't  
5 have a monitoring station there merely suggests  
6 that we need to take more care in making our  
7 assessment. We have to make worst case  
8 assumptions. In this particular situation we took  
9 the higher readings from Hawthorne and applied it  
10 in the same location, assuming that that location  
11 is going to experience similar, if not the same,  
12 PM10 violations that Hawthorne is experiencing.

13 I'm ont sure if that helped.

14 MR. PERKINS: So the worst case is that  
15 this plant could cause violations of the PM10  
16 standard --

17 MR. LOYER: That's correct.

18 MR. PERKINS: -- there?

19 MR. LOYER: It could contribute.

20 MR. PERKINS: As a matter of fact, the  
21 same thing is true about the annual standard,  
22 because the Hawthorne plant is measuring -- it's  
23 not on your figure here, but the Hawthorne plant  
24 is measuring things in the low 30s, as I recall?

25 MR. LOYER: That is correct.

1 MR. PERKINS: So, --

2 MR. LOYER: You want the number?

3 MR. PERKINS: Sure.

4 MR. LOYER: It's 35.2.

5 MR. PERKINS: So it's in violation --

6 MR. LOYER: Oh, I'm sorry, the

7 background is 33.8.

8 MR. PERKINS: 33, 35.2 when you add this  
9 in?

10 MR. LOYER: That's correct.

11 MR. PERKINS: So the plant works and we  
12 actually get rid of a little pollution, you get a  
13 year which would otherwise be 29, this is the  
14 plant that's going to cause the violation?

15 MR. LOYER: Only in theory.

16 MR. PERKINS: Hey, only in real PM10s  
17 raining out of the sky.

18 MR. ABELSON: Argumentative.

19 MR. PERKINS: True? Do you agree with  
20 that?

21 MR. LOYER: Not entirely. You have to  
22 understand what we're using here is a predictive  
23 model. This model may or may not represent  
24 reality. In fact, the model may actually -- is  
25 considered by many to over-predict.

1           So, we feel that this is a conservative  
2       approach to maintain the best line of defense.

3           MR. PERKINS: I'm sorry, is that best  
4       line of defense against people wanting to get a  
5       little less pollution in the air, or best line of  
6       defense --

7           MR. LOYER: To causing or contributing  
8       to --

9           MR. PERKINS: -- against pollutants?

10          MR. LOYER: -- a significant impact.

11          MR. PERKINS: I see. Incidentally,  
12       let's go back to this -- 5.2.6 from the AFC, and  
13       remember, as Mr. Reede so kindly pointed out, you  
14       guys think that this is a bigger polluter than  
15       this table says, you think it's a 9.4 instead of  
16       8.6?

17          MR. LOYER: That's correct.

18          MR. PERKINS: You know, the degree to  
19       which the PM10s are exceeded on this kind of --  
20       this is a heavy background assumption by the  
21       applicant, right?

22          MR. LOYER: Yes.

23          MR. PERKINS: Okay, and if you'd rather  
24       we can use yours on page 4.1-41.

25          MR. LOYER: It's shows 6.9.

1 MR. PERKINS: Sixty-nine?

2 MR. LOYER: I'm sorry, 69.

3 MR. PERKINS: Background of 69, for a  
4 total of 78.4?

5 MR. LOYER: That's correct.

6 MR. PERKINS: So I want to do some  
7 arithmetic here. Maybe I can't, maybe I'll have  
8 to do it right here. Well, let's see here, what  
9 did you say that is, 60 -- the background is what?

10 MR. LOYER: Sixty-nine.

11 MR. PERKINS: It's 69, that's against  
12 what it ought to be, it's less than 50, the  
13 exceedance is 19. Oh, no, but then the power  
14 plant kicks in, and that number jumps up to 78, if  
15 you assume a bad day at the power plant?

16 MR. LOYER: Oh, I'm sorry, 78.4, yeah.

17 MR. PERKINS: Yeah, and so there's an  
18 exceedance of 28?

19 MR. LOYER: Twenty eight point four.

20 MR. PERKINS: Isn't one fair way of  
21 looking at this that the power plant is causing  
22 one-third of the exceedance there?

23 MR. LOYER: Again, this monitoring  
24 station --

25 MR. PERKINS: Nine out of 28?



1 MR. LOYER: -- is not at the point of  
2 maximum impact. We don't know what that pollution  
3 is. So, if you want to say it's fair, I would  
4 have to say no. Is it conservative? Yes.

5 MR. PERKINS: Um-hum. It's pretty hard  
6 to read my arithmetic here.

7 MR. LOYER: Oh, it's pretty good.

8 MR. PERKINS: -- can see it, but it's  
9 harder when you can't.

10 MR. LOYER: Did you do that upside down?

11 MR. PERKINS: Yeah, and left handed,  
12 too, but that's --

13 MR. LOYER: Pretty darn --

14 MR. REEDE: Yeah, but he was in the  
15 Navy.

16 MR. PERKINS: Did you ever see "The  
17 Princess Bride"?

18 MR. LOYER: I have, yes.

19 MR. PERKINS: They sword fight for  
20 awhile and the guys says, "I have something to  
21 tell you, I'm not left-handed."

22 So I was going to say that the  
23 applicant's contribution would be like the straw  
24 that broke the camel's back, but since it's  
25 somewhere in the vicinity --

1 MR. LOYER: Back's already broken to a  
2 certain extent, yeah.

3 MR. PERKINS: The back is broken and it  
4 ain't no straw, it's a very substantial -- it's  
5 almost 20 percent of the allowable standard all by  
6 itself, isn't it?

7 MR. LOYER: If I may say, it's not the  
8 worst I've ever seen, but it is above the  
9 standard.

10 MR. PERKINS: All right. Let's talk  
11 about the models that go into this calculation,  
12 and the reason I want to do that is I want to  
13 suggest to you that though I know that you believe  
14 that -- here, I'll let you testify to it.

15 Do you believe that the modeling is  
16 conservative and you really don't expect to see  
17 even as much as a 9. --

18 MR. LOYER: 9.4. Oh, yes, I believe  
19 that the modeling is conservative. And I do not  
20 expect to see and truly see impacts as high as  
21 9.4.

22 MR. PERKINS: Somewhat less?

23 MR. LOYER: Yes.

24 MR. PERKINS: It's supposed to have some  
25 relationship to reality, the model --

1           MR. LOYER: It's not supposed to be  
2           absurd, but it's not supposed to be close to what  
3           it actually is.

4           MR. PERKINS: So what I'm going to  
5           suggest to you is that there are reasons to think  
6           that the model isn't entirely conservative. There  
7           are reasons why that might be worse than 9.4,  
8           although there are certainly also reasons why it  
9           is conservative and might be better.

10          But before we run off and say, oh, no,  
11          it's not going to be as bad as 9.4, I'm going to  
12          ask you to look at some of the possibilities for  
13          when it might be worse than 9.4, okay? Or have  
14          more impact than we're talking about.

15          MR. LOYER: Okay.

16          MR. PERKINS: First, the applicant, at  
17          least, when they did their study, to get to the  
18          9.4 number they had to start with the amount of  
19          PM10s that they spew out and then they did some  
20          kind of a distribution modeling to decide where  
21          they would come down. Did you do something  
22          similar?

23          MR. LOYER: Essentially, yeah, it's the  
24          same modeling approach.

25          MR. PERKINS: Okay, so their modeling

1 approach uses what's called -- assumes what's  
2 called a Gaussian distribution?

3 MR. LOYER: That is correct.

4 MR. PERKINS: Is that what you used?

5 MR. LOYER: Yes, the same model.

6 MR. PERKINS: And Gaussian, that means  
7 statistical, doesn't it?

8 MR. LOYER: Yes. Well, it's referring  
9 to a mathematician, but, yes.

10 MR. PERKINS: Yeah, yeah, yeah. In  
11 fact, the most famous thing that Mr. Gauss ever  
12 did for the world of mathematics is this bell  
13 curve, right? That's called a Gaussian  
14 distribution?

15 MR. LOYER: Absolutely.

16 MR. PERKINS: And the assumption in your  
17 study and theirs is that there was a Gaussian  
18 distribution of the PM10s in the stack, correct?

19 MR. LOYER: Not in the stack, but at the  
20 exit of the stack, yes.

21 MR. PERKINS: Okay. So, let me offer  
22 just one thing to think about. In any statistical  
23 measurement, any statistical measurement, and  
24 especially in Gaussian distributions, there was a  
25 level of uncertainty as to what the thing looks

1       like, right?

2               MR. LOYER: That is correct.

3               MR. PERKINS: And in fact, there's ways  
4 of modeling and measuring the level of uncertainty  
5 called a standard deviation for Gaussian  
6 distributions, right?

7               MR. LOYER: That's right.

8               MR. PERKINS: And what it means is we  
9 don't know exactly what it's going to be like, but  
10 we can tell you with increasing levels of  
11 certainty that it will be closer to this, or  
12 farther than that, right?

13              MR. LOYER: Right. That's correct.

14              MR. PERKINS: So what is the standard  
15 deviation for this particular Gaussian  
16 distribution?

17              MR. LOYER: For this particular case I'd  
18 have to pull out the modeling to be able to tell  
19 you that, I'm sorry.

20              MR. PERKINS: But it ain't zero?

21              MR. LOYER: No, absolutely not.

22              MR. PERKINS: So it could be worse?

23              MR. LOYER: For this particular case, in  
24 this Gaussian model what they use is a midline  
25 distribution. The concentrations are assumed to

1 be highest at the midline of the plume, and lower  
2 at the edges.

3 MR. PERKINS: Um-hum, who --

4 MR. LOYER: The idea --

5 MR. PERKINS: -- gets carried highest,  
6 the midline or the edges?

7 MR. LOYER: The midline carries the  
8 highest.

9 MR. PERKINS: Which one gets carried the  
10 highest in the air?

11 MR. LOYER: Oh, I'm sorry, the midline  
12 will get carried to a certain height. The top  
13 edge will be carried higher. The bottom edge will  
14 be carried lower. And as the model progresses in  
15 its time and space away from the source of  
16 emission, it takes into consideration the bottom  
17 edge of the plume as it impacts the ground and  
18 then reflects back up. And thus, creating  
19 slightly higher emissions there.

20 MR. PERKINS: All right. But to get  
21 back to the standard deviation though, notion --

22 MR. LOYER: The standard deviation comes  
23 into this particular model in the standard  
24 deviation away from the centerline plume as --

25 MR. PERKINS: Okay.

1 MR. LOYER: -- as a representation of  
2 the concentration of pollution.

3 MR. PERKINS: Right. And if the plume  
4 is -- if the highest concentration of the plume is  
5 offset a little bit, or if the plume is shaped a  
6 little bit different from the bell curve, both of  
7 which the standard deviation notion, the  
8 uncertainty notion the statistics allow for, then  
9 you might get a friendlier distribution of the  
10 stuff when it comes down, and you might get a more  
11 concentrated one, depending on which way it goes,  
12 right?

13 MR. LOYER: There's actually a lot more  
14 into it than that.

15 MR. PERKINS: There's a lot more, but  
16 that's -- I'm just focusing on one. There's  
17 pretty even going to talk about some more, but  
18 that's one of them, right?

19 MR. LOYER: There are a lot of different  
20 things that can affect the centerline of the  
21 plume. If the centerline plume is slightly off-  
22 center from where the, shall we call it the ideal  
23 Gaussian distribution should be, --

24 MR. PERKINS: Right.

25 MR. LOYER: -- it can affect

1 concentrations both up and down.

2 MR. PERKINS: Right. Right.

3 MR. LOYER: But it is --

4 MR. PERKINS: So that's a second, that's  
5 a second way that the model may yield imprecise  
6 results in either a conservative or a  
7 nonconservative way? It just depends on where  
8 that centerline is?

9 MR. LOYER: It depends on where the  
10 centerline is; it depends on how accurately you  
11 incorporate the various elements of the model.

12 MR. PERKINS: Right, okay. The higher  
13 the stack the more the dispersion, right?

14 MR. LOYER: That's typically true.

15 MR. PERKINS: Okay. You know that the  
16 applicant did their survey with -- or their study  
17 with the stack height that was in the application?

18 MR. LOYER: That's correct.

19 MR. PERKINS: And you know that the  
20 stack height has subsequently been changed?

21 MR. LOYER: Been lowered.

22 MR. PERKINS: Yeah. Did you re-do it  
23 with the lower stack?

24 MR. LOYER: That's actually why the two  
25 are different.



1 MR. PERKINS: Okay. So that's why --

2 MR. LOYER: That's why this one is --

3 MR. PERKINS: -- it's worse than the  
4 applicant's suggesting?

5 MR. LOYER: -- what is it, 8.6? And the  
6 refined one, or the newer one is 9.4. It's  
7 because of the lowered stack height.

8 MR. PERKINS: Do you know, did the  
9 applicant submit your numbers or its numbers to  
10 the AQMD?

11 MR. LOYER: I believe they submitted the  
12 first 8.6, and then later the 9.4, the refined  
13 modeling. Or refined modeling, the new modeling  
14 we'll call it. So I think the answer is they  
15 submitted both.

16 MR. PERKINS: The dispersion model --  
17 pardon me, the impact of the PM10s depends on the  
18 ambient temperature, does it not?

19 MR. LOYER: In part, yes.

20 MR. PERKINS: And so the applicant and  
21 you, I presume, did studies at several ambient  
22 temperatures, did they not?

23 MR. LOYER: We included the ambient air  
24 temperature measurements that the District  
25 recommended.

1 MR. PERKINS: Okay. And I know, because  
2 I read the applicant's application that they used  
3 41 degrees to 83 degrees.

4 MR. LOYER: That would be approximately  
5 right.

6 MR. PERKINS: Is that what you used?

7 MR. LOYER: I used the same air quality  
8 data, or air temperature data that they did, yes.

9 MR. PERKINS: Okay. And I also know,  
10 and I can direct you to this, in their studies,  
11 appendix page I-48 of the application, that --  
12 excuse me, I-63, they got the highest  
13 concentration of pollutants at the high  
14 temperature, at 83. Did you also get your worst  
15 concentrations at high temperatures?

16 MR. LOYER: Oh, I used the applicant's  
17 modeling, so if they got theirs at that  
18 temperature then that would be the same place.

19 MR. PERKINS: All right. I would like  
20 you to take a look then at that page I-63 of the  
21 appendices; appendix I is the one that has to do  
22 with air quality.

23 MR. LOYER: What page again, 63?

24 MR. PERKINS: Sixty-three. Just so I  
25 don't, you know, tell you something that isn't

1 true.

2 And so they used both -- they took two  
3 shots, one at a low temperature and one at a high,  
4 41 and 83. And for different pollutants you get  
5 bad news at different temperatures, but for PM10s  
6 it's at 83, right?

7 MR. LOYER: Yeah, the highest is at 83.

8 MR. PERKINS: Right. Which would  
9 suggest that for PM10s, at least, the higher the  
10 temperature the worst the situation, the worse the  
11 impact? Right?

12 MR. LOYER: In this particular case,  
13 yeah.

14 MR. PERKINS: For this power plant, for  
15 this --

16 MR. LOYER: For this power plant at this  
17 location.

18 MR. PERKINS: Okay. Yeah, right, I'm  
19 sure that varies from location to location.

20 MR. LOYER: Oh, absolutely.

21 MR. PERKINS: Well, would you then take  
22 a look in that appendix at page 48, I-48. And  
23 I'll read you a sentence from it. Even at the  
24 coast temperatures well above 100 degrees have  
25 been recorded.

1           That's a meteorological data that they  
2 started with.

3           MR. LOYER: That's right.

4           MR. PERKINS: But they didn't do a 100-  
5 degree study and you didn't do a 100-degree study?

6           MR. LOYER: No.

7           MR. PERKINS: Okay.

8           MR. LOYER: Okay, the meteorological  
9 data. The meteorological data is more or less  
10 dictated by the District. They prefer to use a  
11 meteorological file for a single year, some 20  
12 years old, for a variety of different reasons.  
13 Mainly to keep the model from doing strange things  
14 with misread data.

15           Whenever you do a modeling exercise of  
16 this nature you have to go through and clean up  
17 the meteorological data file that you receive.  
18 You receive it raw from the meteorological  
19 station. It cannot be used in that format because  
20 there are a lot of errors and there is a lot of  
21 missing data.

22           The District has taken the time and  
23 trouble to pick this particularly meteorological  
24 file because they feel it is most relevant to  
25 their air district in the various locations that

1       they have.

2               So the first thing they've got to do  
3       when you are going to do an exercise, a modeling  
4       exercise of this nature, for the Air District, is  
5       you must go to the Air District and get the  
6       correct approved meteorological data file.

7               So that the meteorological data file  
8       does not have the highest recorded temperature at  
9       that particular location is not that relevant in  
10      this modeling exercise.

11              MR. PERKINS: I didn't mean to fault you  
12      for doing what the District wants you to do. What  
13      I'm saying is tell me if you disagree. You've got  
14      higher concentrations in PM10 when you measure the  
15      high temperature than you'd have at a low  
16      temperature.

17              MR. LOYER: For this power plant at this  
18      location.

19              MR. PERKINS: Right, exactly.

20              MR. LOYER: Yeah.

21              MR. PERKINS: And for this power plant  
22      in this location temperatures of 100 degrees will  
23      be encountered?

24              MR. LOYER: Yes, that's a possibility.

25              MR. PERKINS: Have been encountered?

1 MR. LOYER: Have been encountered.

2 MR. PERKINS: And again I'm not faulting  
3 you for this, the modeling you did didn't use that  
4 100-degree temperature?

5 MR. LOYER: That's correct.

6 MR. PERKINS: Can I get you to look at  
7 the FSA page 4.1-43. I thought I had a slide of  
8 that. Sorry, maybe I don't.

9 MR. LOYER: 43?

10 MR. PERKINS: 43, yes, sir.

11 MR. LOYER: Table 16? No.

12 MR. PERKINS: No.

13 MR. LOYER: My page numbering is  
14 slightly off from yours.

15 MR. PERKINS: Oh, really?

16 MR. LOYER: Yeah.

17 MR. PERKINS: It's just above  
18 environmental justice impacts.

19 MR. LOYER: Oh, okay, very good.

20 MR. PERKINS: Initially following, it  
21 says, at the top of my page 44.1-43, initially  
22 following the public comment staff concluded that  
23 there were no additional emissions foreseeable at  
24 the Chevron Refinery. It would be of interest for  
25 the cumulative assessment, but subsequently staff

1       interpreted there will be new unmitigated  
2       combustion-related emissions at the Chevron  
3       Refinery as part of the gasoline reformulation  
4       project, which is replacing MTBE with ethanol.

5               Were you right about that? Stand by  
6       that?

7               MR. LOYER: Oh, absolutely.

8               MR. PERKINS: Okay. And that means that  
9       the impacts from the Chevron emissions could  
10      coincide with the emissions from this power plant?

11              MR. LOYER: To be conservative I assume  
12      that that would be the case.

13              MR. PERKINS: You stated it is  
14      reasonably foreseeable in staff's opinion that the  
15      two maximum impacts could coincide, right?

16              MR. LOYER: That's -- yeah.

17              MR. PERKINS: And you stated that if  
18      you, and I quote: Adding these impacts the  
19      expected ESPII impacts and the background ambient  
20      air quality leaves a cumulative impact of 80.4  
21      mcg/cubic meter averaged over 24 hours for 161  
22      percent of the standard, right?

23              MR. LOYER: That's correct.

24              MR. PERKINS: And 35.6 mcg/cubic meter  
25      averaged over a year, or 120 percent of the

1 standard, right?

2 MR. LOYER: That's correct.

3 MR. PERKINS: And you continued: If  
4 left unmitigated staff would consider the ESPII  
5 contribution to this cumulative impact  
6 significant.

7 MR. LOYER: That's right.

8 MR. PERKINS: Still agree with that?

9 MR. LOYER: Absolutely.

10 MR. PERKINS: Incidentally, we're  
11 talking about operations, but PM10s will be much  
12 worse during construction than they ever will be  
13 during operation, won't they?

14 MR. LOYER: That is generally the case,  
15 yes. Although during construction obviously the  
16 construction activity does come to a halt rather  
17 quickly. In this case I believe it is 20 months  
18 is the total construction time, but the high PM10  
19 will be something that will occur in the first few  
20 months.

21 MR. PERKINS: Okay. Quantify that a  
22 little bit. This is that table with the 90.4 on  
23 it on the bottom. But in the construction -- do I  
24 read this thing right? You're predicting that  
25 during construction these guys will have a 494



1 percent of the state standard PM10s?

2 MR. LOYER: That's pre -- that would be  
3 pre-mitigation measures that would be enacted  
4 there. But, yes, that's correct. Without  
5 mitigation they would be very high.

6 MR. PERKINS: I may not know what  
7 mitigation you're talking about. Are you talking  
8 about onsite mitigation that's going to reduce the  
9 number of PM10s that they give off --

10 MR. LOYER: That's correct.

11 MR. PERKINS: -- during construction?

12 MR. LOYER: That's correct.

13 MR. PERKINS: Okay, what do you get  
14 after they mitigate? Is that in your report?

15 MR. LOYER: I don't believe so. We have  
16 seen mitigation measures of the nature that we're  
17 proposing to mitigate down to about 80 percent of  
18 the project impacts. Given the short-term nature  
19 of these impacts, we believe that that is  
20 sufficient.

21 MR. PERKINS: What do you mean 80  
22 percent? Eighty percent of this number?

23 MR. LOYER: 178, yes. We're talking  
24 about watering twice daily and controlling PM10  
25 emissions from construction equipment.

1 MR. PERKINS: Understand. But 80  
2 percent of 178 is a direct impact of a great deal  
3 more than 50 mcg/cubic meter, isn't it?

4 MR. LOYER: I'm sorry, 80 percent will  
5 be controlled; 20 percent will still be emitted.

6 MR. PERKINS: I see. So the number,  
7 five into 178 --

8 MR. LOYER: What, about 34, 35?

9 MR. PERKINS: -- like 35 or so?

10 MR. LOYER: Yeah.

11 MR. PERKINS: As measured at the  
12 position of worst impact?

13 MR. LOYER: Possibly so.

14 MR. PERKINS: That's the kind of number  
15 that you think you get?

16 MR. LOYER: Yes. And also keep in mind  
17 that this is the worst case scenario, during the  
18 highest PM10 during construction.

19 MR. PERKINS: Right.

20 MR. LOYER: This will not be for the  
21 total 20 months; this will only be for the first  
22 few months primarily.

23 MR. PERKINS: There's a word of art in  
24 this business called fumigation conditions?

25 MR. LOYER: Yes.

1           MR. PERKINS: Can you tell us what  
2 fumigation conditions are?

3           MR. LOYER: During operation?  
4 Fumigation is during early morning hours where the  
5 plume, instead of dispersing, goes into what's  
6 called a fumigation pattern where it stays  
7 concentrated on -- stays at high concentration.  
8 And then will essentially rain down away from the  
9 power plant, at some distance away.

10           And what we do is we want to make sure  
11 that that fumigation is not significant, is not  
12 going to end up in a significant impact. I  
13 believe we did that in, yeah, 15.

14           MR. PERKINS: Is that in table 15?

15           MR. LOYER: Yes. Oh, I should also  
16 indicate that this fumigation would be in  
17 connection with some type of startup operation.  
18 Once the power plant gets in full operational  
19 mode, it won't produce the fumigation.

20           MR. PERKINS: So, I'm looking at your  
21 table 15 and I didn't copy it, but I did copy --  
22 that's in the FSA, so that's in evidence, but I'm  
23 sorry I don't have a slide of it. But I do have  
24 the applicant's study for -- and I'll point it  
25 out.

1           That's from the AFC, page 5.2-7. I  
2       don't know if your numbers agree, but here's the  
3       thing that I noticed about the applicant's  
4       fumigation study. There isn't any number for  
5       PM10s.

6           MR. LOYER: That's right.

7           MR. PERKINS: And I just looked at yours  
8       and there isn't any number for yours, either.

9           MR. LOYER: That's right.

10          MR. PERKINS: So nobody's looked to see  
11       what the fumigation conditions will do to the  
12       PM10, is that a correct statement?

13          MR. LOYER: Fumigation doesn't last but  
14       an hour.

15          MR. PERKINS: A day?

16          MR. LOYER: On a particular day, when  
17       startup occurs, during morning hours.

18          MR. PERKINS: Fumigation is an  
19       atmospheric condition, is it not?

20          MR. LOYER: No, that's a different kind  
21       of fumigation. In this particular case we're  
22       talking about the impact of the plume on the  
23       ground. Fumigation is where the plume will be put  
24       out of the stack, go along a certain level, and  
25       then touch down. Then it's almost like falling

1 off of a cliff.

2 MR. PERKINS: Well, let's look back at  
3 page 4.1-39. It says here, looks to me like  
4 you're talking about the meteorological thing, but  
5 it says here: During the early morning hours  
6 before sunrise the air is usually very stable.  
7 During such stable meteorological conditions,  
8 emissions from elevated stacks rise through this  
9 stable air and are dispersed.

10 But, when the sun first rises the air at  
11 ground level is heated resulting in a vertical,  
12 both rising and sinking, air mixing of air for a  
13 few hundred feet or so. Emissions from a stack  
14 that that entered this vertically mixed air layer  
15 of air will also be vertically mixed bringing some  
16 of those emissions down to ground level.

17 MR. LOYER: That's right.

18 MR. PERKINS: Later in the day the  
19 emissions plume becomes better dispersed. The  
20 early morning air pollution event called  
21 fumigation usually lasts 30 to 90 minutes.

22 MR. LOYER: That's correct.

23 MR. PERKINS: And during early --

24 MR. LOYER: If that's a better  
25 explanation for you, I --

1 MR. PERKINS: -- during an early morning  
2 air pollution event called fumigation the problem  
3 is that that stuff can get shunted, it kind of  
4 rains down, I think you said, --

5 MR. LOYER: Yes.

6 MR. PERKINS: -- to the ground, right?

7 MR. LOYER: Yes.

8 MR. PERKINS: You get very --

9 MR. LOYER: It can --

10 MR. PERKINS: -- you can get very high  
11 concentrations?

12 MR. LOYER: Yes.

13 MR. PERKINS: What I'm asking is --

14 MR. LOYER: How high do you --

15 MR. PERKINS: -- that right after that  
16 comes air quality table 15 with the facility  
17 fumigation modeling and it doesn't have anything  
18 about PM10s.

19 MR. LOYER: How long is the standard for  
20 PM10; 24 hour --

21 MR. PERKINS: It is.

22 MR. LOYER: Right. It is a 24-hour  
23 standard. It's not a one-hour standard.

24 MR. PERKINS: So, okay, I understand.  
25 So because it's a criterion pollutant you checked

1 out PM10s -- excuse me -- yeah, you checked them  
2 out with respect to the standards only. And if  
3 there's any health hazard such as during  
4 fumigation, which the standard doesn't address,  
5 then you didn't address it, is that fair?

6 MR. LOYER: That is a fair criticism, I  
7 would say.

8 MR. PERKINS: It's not a criticism of  
9 you. That's the way the system works. That's all  
10 you're asked to do, right?

11 MR. LOYER: That's correct.

12 MR. PERKINS: Okay. So I think that  
13 maybe we've got enough to suggest some of the ways  
14 in which the PM10s from this plant may actually be  
15 worse than the applicant suggests, or even your  
16 own analysis suggests, and that it will be  
17 dangerous to the health of the 680,000 neighbors.

18 But let's talk about the mitigation  
19 because if I understand it you would agree with  
20 all of that except that you think it's been  
21 mitigated, right?

22 I'm sorry, you wouldn't agree with all  
23 of that?

24 MR. LOYER: Right.

25 MR. PERKINS: You would agree that it's

1 dangerous to the health of the neighbors except  
2 that it's been mitigated?

3 MR. LOYER: I would agree that the  
4 project has mitigated their project impacts.

5 MR. PERKINS: And if they haven't, as  
6 you said earlier, the unmitigated --

7 MR. LOYER: Then I would not be  
8 recommending the project.

9 MR. PERKINS: Right. So, do most of the  
10 PM10s come to breathing somewhere near the  
11 emitter? Okay, do PM10s tend to spread all over  
12 the southern California basin, or do they tend to  
13 come back to earth somewhere close to the emitter?

14 MR. LOYER: The model has a predictive -  
15 the prediction of the model is that there will be  
16 higher concentrations in some areas than others.  
17 But, in reality, we know that PM10, NOx -- well,  
18 we'll focus on PM10, that's where we are really --  
19 PM10 will be dispersed and contribute to a  
20 regional and perhaps even a local impact.

21 MR. PERKINS: Perhaps even a local, did  
22 you say, or global?

23 MR. LOYER: Local. I'm sorry.

24 MR. PERKINS: Well, you point out that  
25 the maximum impact is going to be within the six



1 miles, right?

2 MR. LOYER: That's what the model  
3 dictates to us. That's what the model comes up  
4 with.

5 MR. PERKINS: In that regard has it got  
6 it right? Is the model at all correct about that?

7 MR. LOYER: For a conservative  
8 assessment we assume that it is.

9 MR. PERKINS: So in fact, your model  
10 tells you that the great majority of the PM10s  
11 will come to earth somewhere within that six-mile  
12 radius that you used for your comments, for your  
13 population studies?

14 MR. LOYER: I didn't actually do any  
15 population studies, so --

16 MR. PERKINS: Oh, you figured out how  
17 many people there were.

18 MR. LOYER: I looked up the populations  
19 of the cities.

20 MR. PERKINS: Okay, but anyway the model  
21 tells you that the vast majority of the PM10s are  
22 going to come to rest in that six miles, right?

23 MR. LOYER: It tells me what the  
24 concentrations are.

25 MR. PERKINS: And they're going to be

1 very high -- excuse me -- comparatively high close  
2 to the plant, sometimes as close as 3.35 from the  
3 plant, sometimes about 2 kilometers from the  
4 plant? But generally close by the plant is where  
5 you see --

6 MR. LOYER: Close, yes.

7 MR. PERKINS: -- peaks? And you see  
8 pretty strong peaks in the sense that if you look  
9 ten miles away you don't see much?

10 MR. LOYER: Yes, in that sense, yes.

11 MR. PERKINS: Doesn't that tend to be  
12 true of PM10s out of other people's smoke stacks,  
13 too?

14 MR. LOYER: The model would probably  
15 predict very similar results of that out of other  
16 stacks, yes.

17 MR. PERKINS: How many tons per year  
18 does the applicant predict they're going to put  
19 into the air during operation? That's on page 36  
20 of your FSA.

21 MR. LOYER: We have air quality table  
22 12, and for the entire facility --

23 MR. PERKINS: Yeah, please.

24 MR. LOYER: -- we are at 327.79 --

25 MR. PERKINS: Tons?

1 MR. LOYER: -- tons.

2 MR. PERKINS: If my arithmetic is right  
3 that's 654,000 pounds of 10 micron or smaller  
4 particulates per year, is that right?

5 MR. LOYER: No, I think I kind of know  
6 where you're going, and I think one of the things  
7 that we need to clarify is that that 327 includes  
8 the existing boilers 3 and 4, so --

9 MR. PERKINS: I'm breathing those.

10 MR. LOYER: -- do you want to keep that?  
11 Because they're not included in the modeling, I  
12 don't believe.

13 MR. PERKINS: Let's keep -- they're  
14 included in parts and not in others, I think is  
15 the truth.

16 MR. LOYER: Yeah.

17 MR. PERKINS: Let's keep that. That's  
18 the amount of pollution that we're contemplating  
19 visiting on the residents principally of  
20 Hawthorne, El Segundo and Manhattan Beach.

21 MR. LOYER: 223 currently being visited.

22 MR. PERKINS: So that's very close to a  
23 pound per resident per year.

24 MR. LOYER: You being the mathematician.

25 MR. PERKINS: 680,000 people, 654,000

1 pounds? Do you disagree with that --

2 MR. LOYER: No, no, --

3 MR. PERKINS: -- math? I mean if I'm  
4 wrong, I'm wrong.

5 MR. LOYER: No, okay.

6 MR. PERKINS: So, is the applicant  
7 proposing -- I mean maybe this is -- you told me  
8 when I talked about the during construction stuff  
9 that I was just misunderstanding because they were  
10 going to take some of that and remove it from the  
11 air by watering down and stuff, so it wouldn't  
12 really be as -- is any of this stuff going to get  
13 removed? This is -- is this the actual emissions?

14 MR. LOYER: No, this is what we believe  
15 will be the actual emissions.

16 MR. PERKINS: Okay.

17 MR. LOYER: The maximum emissions,  
18 anyway.

19 MR. PERKINS: Now, in the FSA, the final  
20 staff assessment, you suggested that a viable way  
21 of mitigating might be to try to convert some  
22 tugboats so that they don't emit so many  
23 pollutants, right?

24 MR. LOYER: That's correct.

25 MR. PERKINS: And the reason you think

1 tugboats is that they are local, right?

2 MR. LOYER: In part, yes.

3 MR. PERKINS: Sure, so there --

4 MR. LOYER: That was only part of the  
5 reason --

6 MR. PERKINS: -- would be a local --

7 MR. LOYER: -- but, yes.

8 MR. PERKINS: -- compensation for a  
9 local problem, right?

10 MR. LOYER: Yeah, our preference for  
11 mitigation of this nature is to look closer rather  
12 than farther.

13 MR. PERKINS: Okay, and applicant hasn't  
14 done that? They haven't done any tugboat  
15 conversions --

16 MR. LOYER: We haven't requested them  
17 to, or required them to do that.

18 MR. PERKINS: Right. Instead what  
19 they've done is purchased some credits and seen  
20 some credits that they haven't had to buy and come  
21 out of South Coast Air Quality Management  
22 District?

23 MR. LOYER: If I may?

24 MR. PERKINS: Um-hum.

25 MR. LOYER: They had always proposed to

1 purchase PM10 emission reduction credits and  
2 surrender them. They have also been granted the  
3 right to purchase a certain amount of priority  
4 reserve credits from the District via the rules  
5 and regulations.

6 And that information was known to me  
7 when I put this FSA together. What was unknown  
8 was that the District would, via their NSR  
9 program, also be contributing a certain amount of  
10 PM10 emissions from their sources.

11 MR. PERKINS: I'm sorry, when the  
12 District contributes, does that mean that the  
13 applicant gets a credit for the emission reduction  
14 and doesn't do anything, itself, about that?

15 MR. LOYER: If I may use slightly  
16 different language. What will happen is the  
17 applicant has purchased emission reduction  
18 credits.

19 MR. PERKINS: Right, I know they have.

20 MR. LOYER: It's not a lot, but they are  
21 also going to be allowed to purchase priority  
22 reserve credits. They have to pay a certain  
23 amount, it turns out to be quite a bit of money,  
24 but those credits the applicant is responsible  
25 for, and they must purchase or surrender.

1           The District, in their program, will  
2       also be going and getting, surrendering with those  
3       credits, a certain amount of credits from their  
4       District account.

5           MR. PERKINS: District account. Those  
6       are credits that the District has purchased at  
7       some point in the past?

8           MR. LOYER: In a sense, yes. The  
9       District account has been funded by the various  
10      emission reductions that have gone on throughout  
11      the District that there are a lot of different  
12      funding sources for that particular account.

13          MR. PERKINS: But to make sure I've got  
14      this right, the applicant doesn't pay for that  
15      part of the credits that the District provides  
16      those no charge to the applicant?

17          MR. LOYER: That is correct.

18          MR. PERKINS: Charges to the taxpayer.

19          MR. LOYER: I'm not sure that is  
20      correct, but --

21          MR. PERKINS: Even at the outset of this  
22      project, as you said, the applicant had proposed  
23      to buy emission credits, and in fact, by the time  
24      you wrote your FSA they had purchased some, right?

25          MR. LOYER: They had purchased 24 pounds

1 a day of PM10 in ERCs, emission reduction credits.

2 MR. PERKINS: Okay. But you had some  
3 problems with those?

4 MR. LOYER: No, not those.

5 MR. PERKINS: Let me direct you to the  
6 FSA, you can look at both of these, but I'm most  
7 interested in page 4.1-49. Aren't those the  
8 credits that you were just talking about?

9 MR. LOYER: That's a summary table.  
10 Table 20 you're talking about?

11 MR. PERKINS: I'm not talking about a  
12 table. Here's text on page 4.1-49 of the FSA. So  
13 I'll read it aloud for you: It should be noted  
14 that the 23 pounds per day of ERCs purchased are  
15 not in the general vicinity of the ESP project,  
16 ESPII project site or impacts.

17 That's true, huh?

18 MR. LOYER: Yes, that is true.

19 MR. PERKINS: Okay. And then you go on  
20 to say there's some problems with these credits.  
21 You talk about how they came to be, and in the  
22 last sentence of that paragraph you say:  
23 Therefore, --

24 MR. LOYER: If I may?

25 MR. PERKINS: Um-hum?



1           MR. LOYER: In that particular instance,  
2 I'm not talking about the 23 pounds, I'm talking  
3 about the priority reserve credits.

4           MR. PERKINS: All right, then let's skip  
5 back, come back to that later. Staff is concerned  
6 -- well, let's, okay, let's go to those later.  
7 Let's talk about the 23 pounds.

8           It's significant that they are in the  
9 general vicinity of the ESP project because the  
10 PM10s that they are mitigating are also not  
11 located in the general vicinity of the ESP  
12 project, right? Well, okay --

13          MR. LOYER: Say that one more time?

14          MR. PERKINS: We know where these 23  
15 pounds are, and I forget. Do you remember where  
16 they are?

17          MR. LOYER: Not off the top of my head,  
18 but they're --

19          MR. PERKINS: Well, they're not close to  
20 the South Bay, right?

21          MR. LOYER: That's correct.

22          MR. PERKINS: They're in the extreme  
23 reaches of southern California, the --

24          MR. LOYER: Not that extreme. No.

25          MR. PERKINS: Newhall? Does that sound

1 right?

2 MR. LOYER: Newhall is one of them.

3 MR. PERKINS: Yeah. El Monte, is that  
4 one of them? I forget. Southgate?

5 MR. LOYER: Southgate. They'll be from  
6 what's called zone one.

7 MR. PERKINS: They're a lot farther than  
8 six miles from --

9 MR. LOYER: Yes, they are --

10 MR. PERKINS: -- Hawthorne, huh?

11 MR. LOYER: -- they are farther than six  
12 miles, yes.

13 MR. PERKINS: So most, if not all, --  
14 not all, it's never all -- but the huge effect of  
15 removing PM10s from Newhall has almost nothing to  
16 do with Hawthorne, does it?

17 MR. LOYER: It's unlikely that if you  
18 made an emission reduction in Newhall that you  
19 would be able to measure at Hawthorne.

20 MR. PERKINS: Now, since the time of  
21 your FSA the applicant has bought a lot more  
22 credits, haven't they? ERCs?

23 MR. LOYER: ERCs?

24 MR. PERKINS: Yeah.

25 MR. LOYER: For PM10, I don't believe

1 so.

2 MR. PERKINS: Oh, okay. Have they just  
3 got PRCs?

4 MR. LOYER: Priority reserve credits,  
5 yes.

6 MR. PERKINS: That's it?

7 MR. LOYER: Yeah.

8 MR. PERKINS: We do have a table and  
9 we'll get to it. Now, with regard to the PRCs,  
10 when you wrote your final staff assessment, you  
11 said: Staff is concerned that many of these  
12 credits, by virtue of their age and origin, may  
13 represent only paper mitigation and thus might  
14 not, under closer inspection, mitigate the ESPR  
15 PM10 emission impacts.

16 And then you also talked about the  
17 District rules. I'm not so interested in the  
18 District rules. Do you still have that concern?

19 MR. LOYER: Not any more, no.

20 MR. PERKINS: Okay, why?

21 MR. LOYER: Primarily because at that  
22 particular time we didn't understand, have a full  
23 understanding of how the priority reserve credit  
24 was working.

25 We have since had many discussions with

1 the District and are comfortable with the contents  
2 of what is eventually called the District account,  
3 where the priority reserves will eventually come  
4 from.

5 Therefore, we no longer have these  
6 particular concerns. I should say I no longer  
7 have these concerns.

8 MR. PERKINS: Okay, well, let me ask you  
9 a few questions about the priority reserve  
10 account. Was there, they come out of a District  
11 account, is that right?

12 MR. LOYER: That's correct.

13 MR. PERKINS: And to get into the  
14 District account somebody has to reduce pollutants  
15 somewhere?

16 MR. LOYER: That's correct, that's one  
17 way in.

18 MR. PERKINS: But it can be anywhere  
19 in -- well, what's the other ones?

20 MR. LOYER: There are several other ways

21 MR. PERKINS: Do you know about these?  
22 How they came into being? About the ones that the  
23 applicant is getting, the PRCs the applicant --

24 MR. LOYER: The PRCs are not tracked in  
25 that fashion.

1 MR. PERKINS: I see So to start with  
2 you don't even know if these relate to any  
3 reduction in pollution that was ever done?

4 MR. LOYER: Primarily these are  
5 pollution reductions. There are other ways into  
6 the bank.

7 MR. PERKINS: So they might not reflect  
8 a PM10 reduction anywhere in the world ever, is  
9 that right?

10 MR. LOYER: No, that would not be  
11 correct.

12 MR. PERKINS: Okay, I thought you said  
13 there were other ways into the bank?

14 MR. LOYER: Right, there are other ways  
15 into the bank other than the creation of -- what  
16 is called the creation of PM10 emission reduction  
17 credits. You can ask ---

18 MR. PERKINS: Orphan credits?

19 MR. LOYER: Well, orphan credits are  
20 another way.

21 MR. PERKINS: Orphan credits are when  
22 somebody goes out of business?

23 MR. LOYER: Yes, and they do not apply  
24 for an emission reduction credit. That's actually  
25 one of the reasons I was looking at tugboats is to

1       avoid the orphan credits.

2               MR. PERKINS:  The ones that do result  
3       from somebody reducing emissions somewhere doesn't  
4       have to be anywhere close to Hawthorne, does it?

5               MR. LOYER:  They do carry a zone one and  
6       zone two restriction, but other than that, no.

7               MR. PERKINS:  Okay, how big is zone one  
8       and zone two.

9               MR. LOYER:  I'm sorry, what?

10              MR. PERKINS:  Is that -- what are the --

11              MR. LOYER:  There are two --

12              MR. PERKINS:  -- rough boundaries of  
13       zone one --

14              MR. LOYER:  -- zones to the emission  
15       reduction credit banking.  One is zone one, the  
16       coastal zone; and one is zone two, an inland zone.  
17       And anything that is inland can get anything from  
18       zone one or zone two.  But anything that is in  
19       zone one, like El Segundo, can only pull from zone  
20       one.  They cannot pull from zone two.

21              MR. PERKINS:  What's the rough length  
22       and width of zone one?

23              MR. LOYER:  It runs the north/south  
24       length of the Air District roughly, and if my  
25       memory is correct it goes back to about the center

1 of the City of Los Angeles.

2 MR. PERKINS: And the Air District  
3 covers several counties, if I remember right?

4 MR. LOYER: Yes, it does. It is the  
5 entire air basin.

6 MR. PERKINS: And the reductions also  
7 don't need to have occurred recently, do they?

8 MR. LOYER: There is no time constraint  
9 to emission reduction credits, that's correct.

10 MR. PERKINS: So it's entirely possible  
11 that for all you know, anyway, that the credits  
12 which the applicant is using to satisfy the AQMD  
13 that its pollution is properly mitigated are based  
14 on reductions in pollution that happened years ago  
15 far away?

16 MR. LOYER: This is correct.

17 MR. PERKINS: This is a George Lucas  
18 film, starts with something like that.

19 Okay.

20 HEARING OFFICER SHEAN: That would be  
21 far, far away.

22 MR. REEDE: In a galaxy.

23 MR. PERKINS: Are you aware of any  
24 reduction of local PM10s that ESPII causes which  
25 will significantly offset the effect in Hawthorne?

1 MR. LOYER: Am I aware of any emission  
2 reduction credits that El Segundo could purchase?

3 MR. PERKINS: No. Can you identify any  
4 credits which they have purchased or they've  
5 gotten, given to them by the AQMD which will  
6 significantly reduce the PM10s in Hawthorne?

7 MR. LOYER: That's actually a fairly  
8 difficult question to answer. The PM10 emission  
9 reduction banking system, the NSR banking system,  
10 where the emission reduction credits come from, is  
11 an established NSR program.

12 And what that program is intended to do  
13 is to reduce emissions in the basin in general.  
14 And it does this by allowing a certain amount of  
15 increases for decreases at a 1.2-to-1 ratio. So  
16 for every pound that you increase you must  
17 decrease within the basin 1.2 pounds.

18 Now, those increases and decreases do  
19 not have to coincide in location or impact zone.  
20 This method, this programmatic approach has both a  
21 regional and a local effect.

22 The PM10 emission reduction credits, the  
23 generation of them creates a benefit in a  
24 localized area, but also creates a benefit for the  
25 region.



1           So, to a certain point of view -- not so  
2 much point of view, but to a certain extent every  
3 emission reduction credit, because it is part of  
4 the NSR program, has both a local and a regional  
5 impact. an the fact that it was very old does not  
6 come into play, as long as the program is still  
7 ongoing, it will still produce results.

8           MR. PERKINS: With all due respect, move  
9 to strike as nonresponsive.

10          HEARING OFFICER SHEAN: Do you want to  
11 reply to that?

12          MR. ABELSON: I don't even remember the  
13 question at this point to be honest with you.  
14 Would you like to restate what the question was?

15          MR. PERKINS: The question is -- the  
16 question is can you identify any credit that --

17          MR. LOYER: And the response is --

18          MR. PERKINS: -- that the applicant is  
19 getting --

20          MR. LOYER: -- that every credit has a  
21 local impact because it's part of the NSR program.

22          MR. ABELSON: So basically we believe  
23 this is entirely responsive.

24          MR. PERKINS: But it would be your  
25 testimony that if you were to look at the credits

1 from say Newhall and try to measure a reduction in  
2 PM10s at Hawthorne you would not be able to see  
3 it?

4 MR. LOYER: That's right.

5 MR. PERKINS: And do you know of any  
6 reduction credit, any credit which the applicant  
7 is claiming which you would be able to measure a  
8 reduction in the PM10 level in Hawthorne?

9 MR. LOYER: Since these reductions  
10 happened quite a long time ago -- not quite a long  
11 time ago, but sometime in the past, you will not  
12 be able to measure their effect.

13 But as you can see from these figures we  
14 are seeing improvement in the ambient air quality  
15 at Hawthorne, as well as across the basin --

16 MR. PERKINS: All I wanted to ask you --  
17 okay --

18 MR. LOYER: -- from the NSR program,  
19 itself.

20 MR. PERKINS: Okay. This is the  
21 negative at Hawthorne, and how long has this  
22 program been in effect?

23 MR. LOYER: The NSR program?

24 MR. PERKINS: Yeah.

25 MR. LOYER: You would have to ask the

1 District to comment on that. I'm not exactly  
2 sure. Quite some time.

3 MR. PERKINS: It's been at least since  
4 1989?

5 MR. LOYER: At least since 1989, yes.

6 MR. PERKINS: And in how many years --

7 MR. LOYER: I think it's '90 that they  
8 converted.

9 MR. PERKINS: '90?

10 MR. LOYER: I think it may be '90 they  
11 converted.

12 MR. PERKINS: Okay, and in how many  
13 years since 1990 has the Hawthorne station been in  
14 compliance?

15 MR. LOYER: Hawthorne has not been in  
16 compliance with the state standard.

17 MR. PERKINS: Never, ever, ever is the  
18 answer, right?

19 MR. LOYER: But you can see that it has  
20 been in compliance with the federal standard.

21 MR. PERKINS: Right, right, right, --

22 MR. LOYER: And you can also see that  
23 its compliance is getting better, that its maximum  
24 concentrations are tending downward. That its  
25 exceedances of the ambient air quality standard

1 are lessening. So we are seeing response in  
2 Hawthorne.

3 MR. PERKINS: At the risk of sounding  
4 like the (inaudible) guys, they look at 1990, it's  
5 lower today, but it sure went up in 1995. And it  
6 looks to me like it goes up and down and it never  
7 makes the standard. Would you say that that's a  
8 fair characterization of that?

9 MR. LOYER: That's a maximum 24-hour  
10 ambient air quality standard. I would say that is  
11 not a fair estimation. We have one year that had  
12 a very high measurement, one instance. But we  
13 have the rest of the years that are tending down.

14 MR. PERKINS: We've got three that go  
15 up, right? '93 goes up and '99 goes up.

16 MR. LOYER: '93 --

17 MR. PERKINS: Well, '93 is bigger than  
18 '92 and --

19 MR. LOYER: That's true, '93 did  
20 increase slightly. But we have a downward trend  
21 from 1989 to 2000.

22 MR. PERKINS: Okay. You've read my  
23 rebuttal testimony, I imagine?

24 MR. LOYER: Absolutely, yes.

25 MR. PERKINS: But I haven't recently,

1 and so -- two pages, starts out with a list of  
2 documentary evidence.

3 MR. LOYER: That's something different.

4 MR. PERKINS: Yeah, I have two  
5 testimonies submitted. Maybe you haven't seen  
6 this one before?

7 MR. LOYER: Possibly not. But we will  
8 plow ahead.

9 MR. PERKINS: Okay.

10 MR. ABELSON: Do you have a copy?

11 MR. LOYER: Yes.

12 MR. PERKINS: Well, I'll offer to you  
13 that if you were to read what I have to say about  
14 best available control technology that you would  
15 find that at least two companies, Wheelabrator and  
16 FLS Airtech tell me that they can provide PM10  
17 removal equipment for gas-fired turbines. Do you  
18 have any reason to doubt them?

19 MR. LOYER: Yes, I do.

20 MR. PERKINS: Why is that?

21 MR. LOYER: These gentlemen provide  
22 equipment for coal-fired power plants, not natural  
23 gas.

24 MR. PERKINS: But I asked them  
25 specifically, yeah, yeah, you guys do it for coal

1 fired, but can you do it for natural gas, and they  
2 said yes.

3 MR. LOYER: Yes, they can do it. Will  
4 it be effective? Absolutely not.

5 MR. PERKINS: They said it would be  
6 effective.

7 MR. LOYER: They're wrong.

8 MR. PERKINS: Okay. And which coal-  
9 fired plants have tried it?

10 MR. LOYER: Coal-fired plants?

11 MR. PERKINS: No, I'm sorry, gas-fired  
12 plants have tried it?

13 MR. LOYER: As far as I know nobody has  
14 put this kind of technology on.

15 MR. PERKINS: Exactly. And how do you  
16 know that they are wrong when they say they can do  
17 it?

18 MR. LOYER: The underlying concept of  
19 these control technology is that they control  
20 large PM10 emissions from coal-fired power plants.  
21 The PM10 emissions from a natural gas power plant  
22 are going to not be affected by this technology.  
23 It is still going to emit.

24 What's worse is that because you pull  
25 that plume, slow it down, you will pull it down to

1 ground level faster. And thus, at higher  
2 concentrations. So if anything, this technology  
3 will increase the impact -- but it absolutely will  
4 not decrease it.

5 MR. PERKINS: Have you conducted a study  
6 of this, yourself?

7 MR. ABELSON: I'm going to object to  
8 this line of questioning and let me state why.  
9 Normally we're pretty liberal with the use of  
10 hearsay information. But our regs are very clear  
11 that there has to be a foundation for it to be  
12 given any weight at all. A foundation in terms of  
13 evidence that actually is in the record by a  
14 qualified expert in this case, and there's none of  
15 either.

16 So all of this speculation and hearsay  
17 reporting by Mr. Perkins is perhaps interesting to  
18 all of us at one level, but I think it's entirely  
19 inappropriate for the record.

20 MR. PERKINS: I have two comments about  
21 that. First, before I started examining this  
22 witness you asked me what I wanted to put in  
23 evidence. I stated I wanted to put this in  
24 evidence. There was no objection, it's in  
25 evidence. That's first.

1 MR. ABELSON: I'm sorry, it's in  
2 evidence as part of what?

3 MR. PERKINS: Part of this hearing.

4 MR. ABELSON: You have an attached  
5 study, is that what you're saying?

6 MR. PERKINS: No. This testimony is in  
7 evidence. This testimony contains --

8 MR. ABELSON: Whose testimony? Yours?

9 MR. PERKINS: Mine.

10 MR. ABELSON: Yeah, you're not an expert  
11 on air quality, are you?

12 MR. PERKINS: Pardon me, I should not be  
13 talking --

14 HEARING OFFICER SHEAN: All right, let's  
15 not go there. First of all, number one, to the  
16 extent you've testified that you made contact with  
17 these people, it's in admitted testimony.

18 Secondly, the kind of technologies that  
19 are being discussed here in the examination of the  
20 witness are, number one, known to the witness;  
21 number two, generally known to the air quality  
22 community.

23 And I think it's adding information to  
24 the record that is important, given the testimony  
25 that Mr. Perkins has come forward with.



1                   So, on that basis I'm going to overrule  
2                   the objection.

3                   MR. PERKINS: So, tell me, have you  
4                   contacted either Wheelabrator or FLS Airtech to  
5                   ask them whether they can do this?

6                   MR. LOYER: Not in connection with this  
7                   project, no. But in other projects, yes.

8                   MR. PERKINS: Have they told you they  
9                   couldn't in the past?

10                  MR. LOYER: Yes, they have.

11                  MR. PERKINS: Okay. So you don't know  
12                  what, if anything, has changed?

13                  MR. LOYER: I would say that there has  
14                  been no new development in baghouse technology  
15                  that would lead me to believe that my original  
16                  assumptions are wrong in this particular case.

17                  MR. PERKINS: Actually baghouse  
18                  technology is only one of several precipitating  
19                  and/or filtering mechanisms available, isn't it?

20                  MR. LOYER: There are several, yes.

21                  MR. PERKINS: Okay. And does your  
22                  answer extend to all of them? Do you know that  
23                  all of them don't work?

24                  MR. LOYER: All of them do not work for  
25                  natural gas power plants. They work for coal

1 plants.

2 MR. PERKINS: All right. I know that  
3 they are predominantly, if not all exclusively, in  
4 the past used for coal plants. I know these guys  
5 say that they can do it. I know that, in general,  
6 coal plants have a lot more PM10 so there's  
7 regulatory requirements.

8 MR. LOYER: And it's a lot larger, the  
9 plant.

10 MR. PERKINS: Let me ask you that.  
11 There are regulatory requirements that you use to  
12 filter for PM10s on coal-fired plants, are there  
13 not?

14 MR. LOYER: That is correct.

15 MR. PERKINS: All right, --

16 MR. LOYER: Well, actually in terms of  
17 BACT, BACT is a level not a technology, so they  
18 will draw a line in the sand and say you must get  
19 under this line by any means necessary. But the  
20 only means that you can get under that line in  
21 this particular instance for a coal plant is from  
22 these kinds of control technologies.

23 MR. PERKINS: Let me call your attention  
24 to a letter of November 22nd -- if I can find  
25 it --

1           HEARING OFFICER SHEAN: Mr. Perkins,  
2       while you're hunting there for a second can we  
3       just do a little sidebar here. We're coming up on  
4       5:30 and since we have scheduled the evening  
5       session to begin at 6:00, so far today and  
6       yesterday we have not had members of the true  
7       public, if you will, who have been here to either  
8       observe or comment.

9           And I guess what I'd like to know, I've  
10      asked Ms. Mendonca, the Public Adviser, whether or  
11      not she has any information of expressed public  
12      interest in coming at 6:00 to observe the  
13      proceedings with respect to visual impacts and  
14      noise. She indicates she has not.

15           And I'm just wondering, since you are  
16      probably the closest to the public in Manhattan  
17      Beach, whether or not you are aware of anyone who  
18      intends to come at 6:00 to observe that portion of  
19      our proceedings?

20           MR. PERKINS: I think that there may be  
21      some folks. I think Mr. Isen intends to come. I  
22      don't know how many.

23           MS. MURPHY: Yeah, I've asked the people  
24      who'd be interested in coming (inaudible). Mr.  
25      Isen has indicated he (inaudible) Manhattan Beach

1 (inaudible).

2 HEARING OFFICER SHEAN: Well, I guess I  
3 wonder if we were to recommence at 7:00 as opposed  
4 to 6:00, whether or not you think that would pose  
5 a hardship on any member of the public that you  
6 might believe would be coming?

7 MS. MURPHY: I'd just --

8 HEARING OFFICER SHEAN: Or at 6:30.

9 MS. MURPHY: I don't know. What time is  
10 the public discussion?

11 HEARING OFFICER SHEAN: The public  
12 comment is scheduled between 7:30 and 8:00, but  
13 since it deals with topics that --

14 MS. MURPHY: Oh, no, I don't think  
15 (inaudible).

16 PRESIDING MEMBER PERNELL: Mr. Perkins,  
17 how much more do you have for staff on cross?

18 MR. PERKINS: I would guess a half hour  
19 or less with this witness, but probably an hour  
20 with the other one.

21 PRESIDING MEMBER PERNELL: Do you have  
22 anything for the applicant?

23 MR. PERKINS: I don't think so.

24 PRESIDING MEMBER PERNELL: All right,  
25 please continue.

1 MR. PERKINS: I want to call your  
2 attention to a document that you folks placed in  
3 evidence I believe, dated November 22, 2002, from  
4 Mosen Nazemi to Mr. Reede, with an enclosure which  
5 is the South Coast Air Quality Management District  
6 Board meeting agenda.

7 Have you got that?

8 MR. LOYER: Yeah, right here.

9 MR. PERKINS: On page -- well, my  
10 version is a fax and it's got a pagination from  
11 the fax. Have you got that at the top? Page 5 of  
12 14 it says.

13 It says, this agenda thing says: The  
14 South Coast Air Basin, SOCAB, is the only area in  
15 the nation that has been designated as extreme  
16 ozone nonattainment.

17 Do you agree with that?

18 MR. LOYER: Absolutely.

19 MR. PERKINS: That says: An extreme  
20 ozone nonattainment area may qualify for a 1.2-to-  
21 1 offset ratio if it requires implementation of  
22 federal best available control technology.

23 And then it says: Federal definition of  
24 best available control technology is equivalent to  
25 state best available retrofit control technology,

1 or BARCT.

2 Do you agree with all of that?

3 MR. LOYER: That's correct.

4 MR. PERKINS: Now, best available  
5 retrofit control technology means an emission  
6 limitation that is based on the maximum degree of  
7 reduction achievable, taking into account  
8 environmental energy and economic impacts by each  
9 class or category of source.

10 That's rule 1302, definitions under  
11 South Coast Air Quality Management District. Do  
12 you agree with that?

13 MR. LOYER: Absolutely.

14 MR. PERKINS: That's what they're  
15 saying?

16 MR. LOYER: That's right.

17 MR. PERKINS: Okay. So again, a 1.2-to-  
18 1 ratio --

19 MR. LOYER: Offset ratio.

20 MR. PERKINS: -- this plant would have  
21 to use BARCT?

22 MR. LOYER: Yes.

23 MR. PERKINS: And in particular --

24 MR. LOYER: The District would be  
25 required to insure that they used BARCT.

1 MR. PERKINS: Right, before they --

2 MR. LOYER: BACT, BACT in this case.

3 MR. PERKINS: -- could use a 1.2 ratio;  
4 otherwise they've got to use 1.3 -- and the  
5 difference between 1.3-to-1 and 1.2-to-1 is you  
6 got to retire more credits or buy more credits to  
7 get rid of your pollution problem, right?

8 MR. LOYER: Yeah, I don't believe the  
9 District will allow them to go to 1.3 to escape  
10 BACT, but --

11 MR. PERKINS: I'm talking about --

12 MR. LOYER: -- that is, that would be  
13 the case, yeah. 1.3 means you would buy more  
14 emission reduction credits --

15 MR. PERKINS: Right.

16 MR. LOYER: -- than 1.2.

17 MR. PERKINS: So if these gentlemen are  
18 right and filters or precipitators or some other  
19 technology will reduce -- is feasible to reduce  
20 pollutants at the source, then applicant will have  
21 to use that, or something other than what it is  
22 doing, right?

23 MR. LOYER: If they can prove that it  
24 works, and the applicant does not choose to use a  
25 different method to get below the BACT level

1       because BACT is a level, not a technology --

2               MR. PERKINS:   BARCT.

3               MR. LOYER:   BACT, in this case.  BACT is  
4       equivalent --

5               MR. PERKINS:   Excuse me, --

6               MR. LOYER:   -- to BARCT.

7               MR. PERKINS:   Oh, okay.  Federal BACT,  
8       state BARCT?

9               MR. LOYER:   Right.

10              MR. PERKINS:   But BARCT, which is  
11       equivalent, right?

12              MR. LOYER:   Right.

13              MR. PERKINS:   Is, and I quote, "the  
14       maximum degree of reduction achievable."

15              MR. LOYER:   That is correct.

16              MR. PERKINS:   So if they can't do better  
17       than the bags, then they'd have to use the bags.  
18       Or they can't do better than precipitators, they'd  
19       have to use precipitators, is that right?

20              MR. LOYER:   If they cannot get below the  
21       BACT level requirement, then they would have to  
22       use a technology that would force them to get  
23       below that level.

24              MR. PERKINS:   I guess you're telling me  
25       that though the definition says that it's the



1 lowest achievable, there's, in fact, --

2 MR. LOYER: The lowest achievable  
3 emission. It is a level of emission, not a  
4 technology. They don't force anybody to use any  
5 particular technology.

6 MR. PERKINS: Understand that. But bear  
7 with me a moment. If technology exists which will  
8 reduce the PM10 emission from this plant  
9 below --

10 MR. LOYER: BACT.

11 MR. PERKINS: -- below using no  
12 technology -- below using best --

13 MR. LOYER: Below BACT.

14 MR. PERKINS: -- below what they are  
15 currently proposing to use, right? Got that?

16 MR. LOYER: Okay. If such a technology  
17 exists, --

18 MR. PERKINS: Right, which I--

19 MR. LOYER: -- and it will --

20 MR. PERKINS: -- understand we have our  
21 differences about.

22 MR. LOYER: Right.

23 MR. PERKINS: I've got people that say  
24 it works and you say that it doesn't.

25 MR. LOYER: It absolutely does not.

1           MR. PERKINS: But suppose for a minute  
2           that it does. Then they would be required to use  
3           that technology or find another way to get that  
4           low?

5           MR. LOYER: It would have to be  
6           established as BACT. It's not as cut-and-dry as  
7           that. The technology, BACT level is driven by  
8           what technology can push the emission down to. So  
9           if this technology, this phantom technology, were  
10          able to push PM10 emission levels down to a  
11          certain level below current BACT, then the  
12          District would go through the process of  
13          establishing a new BACT level, which they do on a  
14          constant basis, and they would then force every  
15          new application to get below that BACT level.

16          MR. PERKINS: And nobody, to the best of  
17          your knowledge, has looked into that possibility  
18          with respect to filters or precipitators or  
19          combinations with respect to this application?

20          MR. LOYER: For natural gas-fired power  
21          plants?

22          MR. PERKINS: For this particular  
23          natural gas --

24          MR. LOYER: For any natural --

25          MR. PERKINS: -- fired power plant.

1 MR. LOYER: -- gas fired power plant.

2 MR. PERKINS: Because I gave them the  
3 specs for this particular plant.

4 MR. LOYER: No one has done that.

5 MR. PERKINS: Okay. Now, let's look at  
6 your table 20 which summarizes the offsets for  
7 the --

8 (Pause.)

9 MR. PERKINS: That's from your direct  
10 testimony; it's page 14.

11 MR. LOYER: Supplemental, yeah.

12 MR. PERKINS: Right, supplemental direct  
13 testimony.

14 MR. LOYER: There it is, yeah.

15 MR. PERKINS: Is one of the ways that  
16 the applicant plans to mitigate its -- or offset,  
17 I guess is the right word, offset its pollutants  
18 the shutdown of units 1 and 2?

19 MR. LOYER: That is correct.

20 MR. PERKINS: Now, what are the  
21 requirements to get a credit for a shutdown?

22 MR. LOYER: Let's see, I believe those  
23 are laid out in District rule 13 -- I think it's  
24 5?

25 MR. PERKINS: I think it's 9.

1 MR. LOYER: Nine?

2 MR. PERKINS: Do you believe that?

3 MR. LOYER: Okay.

4 MR. PERKINS: I'm looking at 1309(b) (5)  
5 in particular. Is that one of them?

6 MR. LOYER: It's hard to tell, but --

7 MR. PERKINS: Okay. They are --  
8 reductions have to be not required by a control  
9 measure or a proposed District rule or an adopted  
10 federal, state or District rule, et cetera. They  
11 got to be not required?

12 MR. LOYER: It's right, they have to go  
13 below the required levels.

14 MR. PERKINS: So if I had to shut down a  
15 power plant in order to comply with the District  
16 rule, then I can't claim credits for that  
17 reduction, can I?

18 MR. LOYER: It depends on why that  
19 shutdown is being required. If that's --

20 MR. PERKINS: I said that. If you're  
21 doing it to comply with the District rule --

22 MR. LOYER: Well, if --

23 MR. PERKINS: -- then this --

24 MR. LOYER: -- you're doing it --

25 MR. PERKINS: -- thing says you can't

1 have --

2 MR. LOYER: -- to comply --

3 MR. PERKINS: -- the credits, doesn't  
4 it?

5 MR. LOYER: -- with, and we're talking  
6 about PM10 here, if you're doing it to comply with  
7 the District order that you may not put out any  
8 more PM10, then, yes, you cannot claim that as an  
9 emission reduction credit.

10 But if you're doing that for other  
11 District rules and requirements, then, yes, you  
12 may be able -- may be able to garner an emission  
13 reduction credit.

14 MR. PERKINS: I'm not sure I understand  
15 you.

16 MR. LOYER: That's my understanding of  
17 the District rules and evaluation here.

18 MR. PERKINS: But you don't see that  
19 exception here, do you? It doesn't say what the  
20 rule has to be about?

21 MR. LOYER: I don't see the entire rule  
22 here.

23 MR. PERKINS: I have the entire rule.  
24 I'll show it to you.

25 MR. LOYER: And I am not an expert in

1 the area of this particular District's formulation  
2 of how they determine what is an emission  
3 reduction credit and what is not. I have an  
4 understanding of it, but that is all.

5 MR. PERKINS: Well, do you want to see  
6 the rule? I mean, I don't want to trick you about  
7 the rule. Here's rule 1309; it's several pages.

8 MR. ABELSON: I think I'd probably pose  
9 an objection at this point as to the  
10 qualifications. The witness has already indicated  
11 that he's really not an expert on the operation of  
12 the District's rules, which according to Mr.  
13 Perkins, is several pages --

14 HEARING OFFICER SHEAN: Okay, well, I  
15 don't think we have a question --

16 MR. PERKINS: In that case --

17 MR. ABELSON: We do have District people  
18 here, and perhaps it would be most efficient for  
19 everyone to simply get the answer from them.

20 MR. PERKINS: In that case I'll move to  
21 strike his answer regarding how this rule works,  
22 and say the law speaks for itself. The rule is  
23 also something that I asked you folks to either  
24 receive in evidence or take as judicial notice of.  
25 And I assume you've done that, since --

1 HEARING OFFICER SHEAN: Well, we can  
2 take notice of the rules.

3 MR. PERKINS: So, you can read the rules  
4 as well as I can.

5 So, another document that the staff  
6 wanted to put in evidence, that is in evidence, is  
7 a letter to James Reede with enclosures that Mr.  
8 McKinsey specified -- excuse me, to Joe Loyer with  
9 enclosures that Mr. McKinsey specified, dated  
10 January 16, 2003. It's got a cover note and it's  
11 five pages.

12 You got that?

13 (Pause.)

14 MR. PERKINS: You got it?

15 MR. LOYER: I think so.

16 MR. PERKINS: This letter of January 16,  
17 2003, does everybody have a copy of that? Does  
18 anybody need it?

19 HEARING OFFICER SHEAN: We do not.

20 MR. PERKINS: That makes it hard.

21 (Pause.)

22 MR. PERKINS: It starts out by saying:  
23 The rule 2009 compliance plan show that ESPR is  
24 planning to remove boiler units 1 and 2 from  
25 service by the end of last year, right?

1 MR. LOYER: That is correct.

2 MR. PERKINS: And then it encloses the  
3 facility permit and the administrative  
4 requirements which are found on page 3 of the fax.  
5 It says: The facility shall be subject to the  
6 terms and conditions of this compliance plan and  
7 basically says that the compliance plan for  
8 following rule 2009 for ESPII is to shut down  
9 units 1 and 2.

10 MR. LOYER: That is for complying with  
11 NOx BACT requirements, yeah.

12 MR. PERKINS: Right, 2009 is a NOx rule,  
13 right?

14 MR. LOYER: Correct. That is reclaimed.

15 MR. PERKINS: Okay. Now I understand  
16 that you believe that though they shut it down to  
17 comply with the regulation, since the regulation  
18 is not about PM10s, they should still get credit.  
19 I understand that's your thought.

20 But if they don't get credit for the  
21 shutdown of units 1 and 2, if they don't get this  
22 223 pounds a day credit, then they don't have  
23 enough credits to pass muster under the AQMD, do  
24 they?

25 MR. LOYER: That would be incorrect.



1 The A --

2 MR. PERKINS: They still have enough?

3 MR. LOYER: The AQMD did not take the  
4 shutdown of the emissions into consideration when  
5 they made their determination.

6 MR. PERKINS: But you've got -- okay.  
7 Fair enough. AQMD is one value, you're another.  
8 They would instead of having 772 pounds per day of  
9 emission reductions, they would have 400 and --  
10 no, 549, or 550, something like that? Right?

11 MR. LOYER: If you did not include the  
12 shutdown of units 1 and 2 that would be correct.

13 MR. PERKINS: Okay. And how much, how  
14 many pounds per day are they putting out --  
15 proposing to put out? 600 and something?

16 MR. LOYER: Clarified -- oh, the new  
17 units?

18 MR. PERKINS: Um-hum.

19 MR. LOYER: The new units are proposing,  
20 I think, to put out, what was that, 104 each?

21 MR. PERKINS: No, you're looking at  
22 tons. Pounds per day.

23 (Pause.)

24 MR. LOYER: For the two turbines, we  
25 have -- we didn't break out the two turbines

1 alone, so -- in this particular table, so it's not  
2 going to be as helpful as that.

3 But we had the two turbines together; it  
4 looks like we have somewhere in the neighborhood  
5 of 450, plus probably plus some startup. But for  
6 normal operation -- what did you say, again? 633?

7 MR. PERKINS: I didn't say 33 because I  
8 forgot, is that right?

9 MR. LOYER: I think, yeah, that would be  
10 in the neighborhood.

11 MR. PERKINS: 633?

12 MR. LOYER: Yeah.

13 MR. PERKINS: I have no more questions  
14 of this witness.

15 But, Mr. Nickelson --

16 MR. PERKINS: Are you looking at --

17 MR. LOYER: 615, that's what I got here.

18 MR. PERKINS: 615 is what you got?

19 MR. LOYER: Yeah, that's (inaudible).  
20 That's out of my testimony, page 15, table 22  
21 revised, 615 pounds per day.

22 MR. PERKINS: I have no more questions  
23 of this witness.

24 HEARING OFFICER SHEAN: Okay, any other  
25 intervening party want to ask a question of Mr.

1 Loyer?

2 MR. NICKELSON: If I could.

3 HEARING OFFICER SHEAN: Sure.

4 MR. NICKELSON: Nick Nickelson, I'm an  
5 intervenor from Manhattan Beach.

6 PRESIDING MEMBER PERNELL: Um-hum.

7 CROSS-EXAMINATION

8 BY MR. NICKELSON:

9 Q Mr. Loyer, one question. On page 4.1-47  
10 of the FSA, --

11 MR. LOYER: Starts with table 17-18?

12 MR. NICKELSON: Yes.

13 MR. LOYER: Okay.

14 MR. NICKELSON: And at the bottom of the  
15 page where it said that there's an assumption that  
16 ESPII will mitigate PM10 impacts by 23 pounds a  
17 day, and 293 pounds a day priority reserve.

18 Now, this says an assumption. Is this  
19 fact now, or is this an assumption?

20 MR. LOYER: What we've done, because of  
21 the timing requirements for the priority reserve,  
22 the emission reduction credits we're not so  
23 concerned with. There is a very simple method by  
24 which we can track whether or not they've  
25 surrendered their emission reduction credits.

1           But the priority reserve was a little  
2           bit more difficult. So what we have devised is a  
3           condition of certification, and I've put it in my  
4           revised testimony here, and let's see, get the  
5           condition number -- AQC-5, where we actually  
6           identified the certificate numbers that they have  
7           to retire. And they have to get what's called an  
8           NSR ledger account for the El Segundo Power  
9           project to -- they get that from the District.  
10          And the District will report on that accounting  
11          ledger exactly how much credits were given, how  
12          much priority reserve credits were given for the  
13          project, as well.

14                 MR. NICKELSON: Okay, so once that  
15                 happens and once that totals up to be the number  
16                 that you require, that's when you will approve it?

17                 MR. LOYER: Then I can check it off.

18                 MR. NICKELSON: Okay, thank you. Can I  
19                 ask just a couple more questions?

20                 MR. LOYER: Sure.

21                 MR. NICKELSON: I appreciate your  
22                 response to a letter that I had written, you know,  
23                 my testimony regarding this. Also I mentioned in  
24                 that, in a letter that I had written before, that  
25                 we used an engineering analysis and assessment

1       that the Navy performed.

2               MR. LOYER:   That would be on the  
3       housing?

4               MR. NICKELSON:  An environmental  
5       assessment on the housing.

6               MR. LOYER:   Right.

7               MR. NICKELSON:  And the only reason that  
8       I did that is I'm really confused when I look at,  
9       you know, all of the 327 tons, you know, what does  
10      that mean, you know, coming out of a power plant.  
11      Doesn't make much sense to me --

12              MR. LOYER:   Yeah, you can't really get  
13      your hands around it.

14              MR. NICKELSON:  Yes.  But in the Navy's  
15      assessment, and I use this because we have a  
16      foundation and the Navy provided two buildings for  
17      us.  And on that property are 545 houses, plus,  
18      you know, these two buildings are storage-type  
19      buildings.

20              MR. LOYER:   Right.

21              MR. NICKELSON:  And the Navy, in their  
22      environmental assessment, said that that generates  
23      33.5 pounds a day, or 6.12 tons a year of PM10.  
24      And this is equivalent to 4585 vehicular trips.

25              Now, you know, you said well, you

1 can't --

2 MR. LOYER: Do you have a better handle  
3 on it with that comparison? It's a hard  
4 comparison to make, and it's one of the reasons  
5 that we don't look at residential development as a  
6 good mitigation source. Because there is, for the  
7 development, itself, the emissions from houses.  
8 There isn't that much PM10 coming out.

9 MR. NICKELSON: No, the only thing that  
10 PM10 could possibly come maybe from the water  
11 heaters in the home.

12 MR. LOYER: Yeah.

13 MR. NICKELSON: And that's negligible.

14 MR. LOYER: Yeah.

15 MR. NICKELSON: So, they base this on,  
16 you know, the number of car trips that would be  
17 made, --

18 MR. LOYER: Right.

19 MR. NICKELSON: -- even local car trips.

20 MR. LOYER: Yeah, from automobiles, as  
21 well, we don't get that much PM10. From trucks,  
22 yes. But from cars, no. They don't put out that  
23 much PM10. So we actually made this comparison in  
24 the project for, I think it was San Francisco  
25 Energy, a few years back.

1           And for cars, it's hundreds. But for  
2           trucks, it's not that many. It might have been a  
3           better idea for maybe me to have made the  
4           comparison between the power plant and a number of  
5           say large diesel trucks. That may have come out  
6           better.

7           MR. NICKELSON: Okay.

8           MR. LOYER: But also, there was a reason  
9           I picked the diesel engine to retrofit. The PM10  
10          from diesel is actually considered more of a  
11          carcinogenic than most because of the content of  
12          acrolein primarily.

13          MR. NICKELSON: Okay, so what I've said  
14          here then really doesn't make much sense?

15          MR. LOYER: Well, it does, it's just I  
16          don't think it helps -- I don't think it helped  
17          you that much, and I don't think it helped, if I  
18          may say, I don't think it helped anybody else  
19          really get their hands around what this number  
20          means.

21          It is a large -- it ends up being  
22          comparatively a large development, a lot of cars.  
23          But if you compared the trucks and if you compared  
24          the things that actually put out PM10, it doesn't  
25          end up being that much.

1 MR. NICKELSON: Um-hum, okay. Well,  
2 being just a local citizen, I'm not a biologist,  
3 I'm not a scientist, you know, I listen to things  
4 that Mr. Perkins has said, you know, and that  
5 lends considerable concern, you know, to concerns  
6 that I have.

7 And also in reading like in The L.A.  
8 Times, and I know that this isn't part of the  
9 testimony, and I'd just like to say that, you  
10 know, and I talked to the gentleman from Air  
11 Quality Control District here, that there was an  
12 article recently, and this was in January in The  
13 L.A. Times that said that -- if I could just read  
14 the paragraph here:

15 Air quality officials now acknowledge  
16 that they have seriously underestimated emissions  
17 from cars and trucks. New computer models show  
18 that vehicles produced about 30 percent more smog-  
19 forming emissions than once believed.

20 MR. LOYER: Primarily talking about  
21 ozone there.

22 MR. NICKELSON: Ozone?

23 MR. LOYER: Yeah.

24 MR. NICKELSON: Okay, so not talking  
25 PM10?



1           MR. LOYER: Not primarily PM10, but also  
2           if you look at the smog indexes, they're based on  
3           not just ozone, as well. But that was a good  
4           article. I actually read that article, as well.

5           MR. NICKELSON: Oh, you did?

6           MR. LOYER: Yeah.

7           MR. NICKELSON: Okay. So, you said that  
8           with those kind of problems with AQMD, and I had  
9           mentioned, you know, to the gentleman that them  
10          providing, you know, the points that are needed  
11          here, that it doesn't really impact what they're  
12          doing. This is a problem that they had that'll be  
13          dealt with further downstream.

14          I know they're saying at the end of this  
15          decade is what this was relating to. But, --

16          MR. LOYER: Right.

17          MR. NICKELSON: -- my concern was well,  
18          if they provide, you know, these credits for the  
19          power plant, you know, what does that do but just  
20          add to the problem.

21          MR. LOYER: It might make a bigger  
22          impact on you to understand, you know, what kind  
23          of strides the District has been able to do. In  
24          considering the amount of people that have moved  
25          into the area, how the population has increased in

1 the Los Angeles air basin, and not just, you know,  
2 near the waterfront, but in the entire basin, and  
3 all the industry that has come in, and even the  
4 industry that has gone out --

5 MR. NICKELSON: Yes.

6 MR. LOYER: If we look at all these  
7 changes and all this concentration of new people  
8 in the area, it's actually quite remarkable that  
9 the emissions -- that the air isn't that much  
10 worse, but that we've actually got the significant  
11 kinds of improvement that the Air District has  
12 managed to -- I keep pointing to that, I'm sorry,  
13 but the significant kind of improvements that the  
14 District has managed to do under very extreme  
15 conditions.

16 They have developed rules that are  
17 models for other air districts, other states and  
18 other countries. They've gone to a great extent  
19 to control the emission sources that they can.

20 I think a lot of the problem that we're  
21 facing, and I say we, because it really is all of  
22 us in California, but that we're facing here in  
23 South Coast is not only the point sources, the  
24 stationary sources, the power plants, the  
25 industrial sources, but also the mobile sources

1 are playing a much, much bigger role these days.

2 And I think that is outside of the  
3 District's authority. They can't go down and say,  
4 okay, you know, you Humvee dealer, you're not  
5 going to be selling more than two of those down  
6 here. They're not allowed to do that.

7 But that is under the control of other  
8 agencies like the California Air Resources Board  
9 and EPA, can handled things like interstate  
10 commerce and international travel. And they,  
11 because of articles like that, and because of  
12 political pressure like that, ARB and EPA are much  
13 more likely now to sort of step up to the plate  
14 and start controlling, and start really hammering  
15 on these kinds of emissions.

16 But the program, the NSR program the  
17 District is responsible for has done a wonderful  
18 job, including the reclaim program.

19 MR. NICKELSON: Okay, another question  
20 is going back to the, you know, the 325 tons or  
21 327 tons a year, that we discussed this at the  
22 November 7th meeting that we had --

23 MR. LOYER: Yeah, the one I --

24 MR. NICKELSON: -- Mr. Shean, --

25 MR. LOYER: -- didn't attend by phone.

1 MR. NICKELSON: Okay.

2 (Laughter.)

3 MR. NICKELSON: Well, the question at  
4 that time was -- and Bob just, I think,  
5 reemphasized it again, you know, because if those  
6 emissions of PM10 are going to fall within the  
7 six-mile radius, we're going to be nailed with  
8 this. So that's definitely, even though, okay,  
9 the plant can go ahead because, you know, they've  
10 met the emission requirements.

11 At that time we were talking and you  
12 said that we would bring in -- or that you would  
13 bring in a doctor, that we would handle this under  
14 the health. And -- oh, this is the doctor? So  
15 after awhile, while you all are eating dinner he  
16 can sit here and talk to the residents, huh?

17 HEARING OFFICER SHEAN: He might want to  
18 eat, too.

19 MR. NICKELSON: Okay. So, --

20 PRESIDING MEMBER PERNELL: If we don't  
21 hurry up, no one's going to eat.

22 MR. NICKELSON: Well, hey, I've only  
23 been up here four minutes, you know, and --

24 PRESIDING MEMBER PERNELL: I know, I'm  
25 not directing this at you.

1 MR. NICKELSON: I've got good news and  
2 I've got bad news. I won't be talking but two  
3 more minutes, you know, --

4 PRESIDING MEMBER PERNELL: I am not  
5 directing this at you.

6 MR. NICKELSON: -- and the bad news is I  
7 don't know what I'm talking about.

8 (Laughter.)

9 MR. NICKELSON: I would appreciate,  
10 though, if we could maybe talk to you before the  
11 evening's over, before you leave?

12 DR. ODOEMELAM: Sir, I'll be there.  
13 Right.

14 MR. NICKELSON: Great. So you've  
15 committed. You've filled your commitment. Now  
16 one other commitment was made at that time, and I  
17 have to go over here and talk to Mr. McKinsey.

18 At that meeting Mr. McKinsey said he'd  
19 like to be a good neighbor. And this was when we  
20 were talking about the El Segundo -- (inaudible)  
21 over there, you know it, but you know, they had  
22 mentioned several things like planting trees,  
23 maybe electric mowers. It came up again, you  
24 know, about retrofitting some of these tugs, and I  
25 don't think that that -- I would hate to see

1 something like that imposed on you, but, you know,  
2 you said that, hey, we want to be a good neighbor  
3 to the people, let us talk about this and not let  
4 this hold up the process, you know, the plant  
5 being approved. But let's deal with this outside.

6 And I'd mentioned this, you know, in my  
7 correspondence and my testimony and the state so  
8 kindly came back and said, hey, that they're not  
9 forcing anything like that, but they're not  
10 opposed, you know, to us dealing with the  
11 applicant, you know, in that manner.

12 Now do you still stand behind that,  
13 John? Doing some local things here that will make  
14 us happy?

15 MR. McKINSEY: What we had indicated was  
16 that we did want to be a good neighbor, we do want  
17 to be a good neighbor, and that these proposals,  
18 and they originated from the City of El Segundo's  
19 list --

20 MR. NICKELSON: Yes.

21 MR. McKINSEY: -- included things such  
22 as planting trees, a lawnmower replacement  
23 program. We have started that dialogue with the  
24 City of El Segundo. The City of El Segundo has  
25 made that that easy, and I think they really

1 dropped most of those things and put most of their  
2 efforts on the 1.2 acres of land for public  
3 access.

4 And so at this point we haven't gotten  
5 anywhere with any dialogue that would allow us to  
6 reach some kind of enhancement agreement. And  
7 we've kind of tried to make it connect to the  
8 whole facility that's there now and our  
9 relationship with the City.

10 So, remember I think I'd indicated that  
11 in the end it's still dollars and cents. And the  
12 power plant is a business. And when they want one  
13 thing that just makes less that you can offer of  
14 another.

15 And so my answer is we still want to be  
16 a good neighbor, but we haven't finished trying to  
17 figure out what it is that we could reach  
18 agreement with the City of El Segundo on. That's  
19 not going to stop because of this proceeding  
20 reaching any particular point.

21 MR. NICKELSON: Okay.

22 MR. MCKINSEY: And in fact, we're  
23 connecting it to the facility as a whole.

24 MR. NICKELSON: Okay, thank you. You  
25 know, too, Mr. Commissioners, I'd just like to say

1 I feel very strongly that Mr. Reede and the staff  
2 has come back, you know, in a positive way.

3 I can't look at things the way that Mr.  
4 Perkins does, you know, I can't figure things -- I  
5 mean I can pick things out, you know, it takes me  
6 a long time to do that even.

7 But I appreciate the fact that the  
8 Commission has come back. They have listened to  
9 what we've had to say. I feel that they've taken  
10 what I presented to them, they've read it and  
11 they've given it due process. And then also have  
12 come back to say this is something that they're  
13 not opposed, or a way to do something.

14 So I certainly want to commend them for  
15 that. And I appreciate it. That's all, I'm  
16 through.

17 HEARING OFFICER SHEAN: Okay.

18 PRESIDING MEMBER PERNELL: Thank you.

19 HEARING OFFICER SHEAN: Thank you, Mr.  
20 Nickelson.

21 PRESIDING MEMBER PERNELL: The Committee  
22 also thanks you for participating in the process.

23 MR. NICKELSON: Okay, sir, thank you.

24 MS. MURPHY: I'm sorry, I have a few  
25 questions --



1 MR. NICKELSON: Happy birthday, again.

2 MS. MURPHY: I have a few questions --

3 PRESIDING MEMBER PERNELL: Yes.

4 MR. NICKELSON: To ask me?

5 (Laughter.)

6 HEARING OFFICER SHEAN: Who are you

7 going to ask?

8 MS. MURPHY: (inaudible) --

9 MR. NICKELSON: I was hoping somebody'd  
10 ask me a question.

11 (Parties speaking simultaneously.)

12 MS. MURPHY: No, no, no.

13 CROSS-EXAMINATION

14 BY MS. MURPHY:

15 Q I was just alarmed by what I read about  
16 the fumigation, which I -- and didn't even know  
17 existed.

18 MR. LOYER: Yeah, maybe I --

19 MS. MURPHY: Are you saying it's a  
20 startup thing? It's not every day? I thought it  
21 was every day's effect of the --

22 MR. LOYER: Well, primarily, in reality  
23 primarily fumigation is going to be something,  
24 like said in testimony, is an early morning  
25 occurrence because the ambient meteorological --

1           PRESIDING MEMBER PERNELL: We need --  
2       excuse me --

3           MR. LOYER: I'm sorry.

4           HEARING OFFICER SHEAN: Apparently we're  
5       having --

6           (Pause.)

7           MR. LOYER: Okay, yeah, I apologize for  
8       the discussion on fumigation. I really -- well,  
9       anyway, fumigation is something that's going to  
10      occur in the early morning hours because the  
11      meteorological conditions are cool and --

12          MS. MURPHY: Well, what about is it  
13      startup or is it all the time?

14          MR. LOYER: It's primarily startup.  
15      Primarily we're talking about startup. That's  
16      when the emissions are going to be --

17          MS. MURPHY: But you didn't say that in  
18      your testimony that --

19          MR. LOYER: Well, in reality --

20          MS. MURPHY: -- that -- but the numbers  
21      you're talking about startup numbers because  
22      that's the worst case? Is that what it is?

23          MR. LOYER: The numbers there are going  
24      to be reflecting the highest concentrations for  
25      NO2 and SO2. For NO2 we're not too concerned

1 about NO2 because we don't have anything close to  
2 an ambient air quality standard that's going to be  
3 violated. Nothing even close.

4 But SO2 is a precursor for PM10, so  
5 we're much more concerned about that. And that's  
6 going to be higher if the project is operating  
7 flat-out. During startup SO2 emissions are  
8 actually very low because there's very little fuel  
9 being burned.

10 So what I wanted to reflect fairly  
11 consistent operations, so I chose the normal  
12 maximum level operation. But I put it into a  
13 context of the early morning hour and pretended  
14 that -- if you can believe me -- I pretended that  
15 it behaved more in the fumigation manner.

16 So we have cold air on top; the maximum  
17 emissions get up into this cold air; stay up here.  
18 and then as the ground gets warmed, the ground  
19 actually drags them down.

20 And if you actually see a picture of it,  
21 you --

22 MS. MURPHY: Can we see it? Yeah, can  
23 we see the plume landing on the ground?

24 MR. LOYER: You can't really, but if you  
25 could, you would see it go over and actually drop

1       like a cliff, like off a cliff and come down in  
2       finger-like tentacles.

3               MS. MURPHY:  It lands in certain spots,  
4       so it's not -- fumigation doesn't affect the six-  
5       mile radius, it's where it lands?

6               MR. LOYER:  It will actually come down  
7       actually really fairly close to the project  
8       facility.

9               MS. MURPHY:  Like our house?

10              MR. LOYER:  More like the Chevron  
11       Refinery kind of place.

12              MS. MURPHY:  That's us.  We're across  
13       from there.  Yeah, that's his house.

14              Okay, I just wanted to know that.

15              MR. LOYER:  What James was saying is  
16       that one of the other possibilities is that this  
17       will actually happen out over the Bay.  It may not  
18       happen --

19              MS. MURPHY:  Sure, oh, of course, it  
20       could go, --

21              MR. LOYER:  -- inland at all --

22              MS. MURPHY:  -- depending on the -- I  
23       understand that, but I'm just, you know, --

24              MS. CRIPE:  Can you put a cover over it?

25              MR. LOYER:  No.  No, ma'am, that

1 would --

2 MS. MURPHY: That would make it worse, I  
3 guess. Along with that, there's no PM10 modeling  
4 for fumigation because --

5 MR. LOYER: Because --

6 MS. MURPHY: -- why one hour? Why don't  
7 you, I mean, --

8 MR. LOYER: -- there's no --

9 MS. MURPHY: -- maybe you're  
10 speculating, but --

11 MR. LOYER: There's no one-hour PM10  
12 standard to compare it to.

13 MS. MURPHY: But inheriting soot for an  
14 hour is not good for you. But why don't they do  
15 it --

16 (Laughter.)

17 MR. LOYER: Well, it's not soot. It's  
18 not soot. It's very small particles --

19 MS. MURPHY: Tiny, yeah, but --

20 MR. LOYER: -- and if you encounter  
21 small particles for a very short duration of time  
22 the expectation is that you will have no harm.

23 MS. MURPHY: Really? I thought it went  
24 deep inside your lungs and didn't come out? I  
25 mean, I'm just --

1 MR. LOYER: It can, PM2.5 can definitely  
2 do that --

3 MS. MURPHY: Which is what this all is.  
4 Yes.

5 MR. LOYER: Yes, yes.

6 MS. MURPHY: All right.

7 MR. LOYER: But if it's only for a short  
8 amount of time, and you are then removed from that  
9 situation, you can expel it, and you do --

10 MS. MURPHY: PM10s --

11 MR. LOYER: -- expel it.

12 MS. MURPHY: -- or larger probably, but  
13 not --

14 MR. LOYER: They'll penetrate as what  
15 (inaudible) penetrate, and that's why there's a  
16 standard for PM10.

17 MS. MURPHY: Right.

18 MR. LOYER: And not really a standard  
19 for particulate and larger, larger coarse  
20 particulate.

21 MS. MURPHY: I have one more sort of  
22 question having to do with my alarm about this,  
23 about fumigation, about construction. We have,  
24 whether it was a year ago, months ago, sometime,  
25 we had a period of time we talked about noise, and

1       there going to be a startup loud noise thing. I  
2       forget what it's called.

3               And they're going to be warning people  
4       on the beach. Is there any possibility of warning  
5       people in this either the six-mile radius, or in  
6       the Town of Manhattan Beach that they're going to  
7       be constructing now, it's going to be really  
8       dusty, you might -- or, for example, the people  
9       that run by, or the surfers that surf in front of  
10      it, that this is a period of time that you might  
11      want to be careful.

12             I mean they do smog alerts. Is that a  
13      possibility?

14             MR. LOYER: They are required to have a  
15      certain amount of notification that this is a  
16      construction zone that you're going to be entering  
17      or ride by --

18             MS. MURPHY: Will it say that --

19             MR. LOYER: Yeah, this is a construction  
20      zone.

21             MS. MURPHY: That makes it sound like  
22      noise is a problem. And noise is a problem, but  
23      all the worst you can lose your hearing. This you  
24      can lose your life.

25             PRESIDING MEMBER PERNELL: Well, let me

1 say, the construction zone signs you're talking  
2 about are on the street, right? That's not  
3 noticing --

4 MS. MURPHY: Beach people and other  
5 people, yeah, --

6 PRESIDING MEMBER PERNELL: You're  
7 referring to noticing the public, which is  
8 something different than --

9 MR. LOYER: Several miles, maybe several  
10 blocks away, maybe anywhere from several blocks --

11 MS. MURPHY: Well, every morning at this  
12 fumigation time, not every morning, because I know  
13 it rains, whatever, but there are hundreds of  
14 surfers that come down there to our beach. And  
15 they work really hard, I know, because Bob does it  
16 occasionally, I don't, go out there.

17 And they are using their lungs a great  
18 deal. Now, at construction times, at some times  
19 they're going to be hurting more than your average  
20 person And I just wondered if it's possible to  
21 let them know that -- and that's not going to stop  
22 them. They go in the water when they've had a  
23 storm in there. Just it's --

24 MR. LOYER: A lot of those guys are  
25 crazy, right, Bob?



1 I'm not sure exactly how to respond to  
2 that. It's just the construction zone, itself,  
3 the construction area, itself, will be, I  
4 understand will be placarded that says  
5 construction, --

6 MS. MURPHY: Um-hum, construction  
7 zone --

8 MR. LOYER: -- there's construction  
9 going on. Whether they will be warning anybody  
10 that there will be excessive noise, I suggest that  
11 they --

12 MS. MURPHY: There will be noise for the  
13 startup for that blow thing that's --

14 MR. LOYER: Right, right, --

15 MS. MURPHY: -- happening. There will  
16 be --

17 MR. LOYER: -- the blow, yeah, but --

18 MS. MURPHY: -- that. But what I'm  
19 saying is --

20 MR. LOYER: -- that's a -- that's a rare  
21 occurrence --

22 MS. MURPHY: -- that's only your ears --

23 MR. LOYER: That's like one or two time  
24 occurrence.

25 MS. MURPHY: I know, I know. I know.

1 MR. LOYER: But during the  
2 construction --

3 MS. MURPHY: Yeah, well, you said the --

4 MR. LOYER: -- there will be --

5 MS. MURPHY: -- worst part of --

6 MR. LOYER: -- no --

7 MS. MURPHY: -- construction is going to  
8 be a couple of months at the beginning --

9 MR. LOYER: The first couple of months.

10 MS. MURPHY: Yeah.

11 MR. LOYER: And what they're going to be  
12 doing --

13 PRESIDING MEMBER PERNELL: Can I just  
14 say, can the Committee look into that request?

15 MS. MURPHY: Okay.

16 PRESIDING MEMBER PERNELL: It seems to  
17 me that we already have a mailing list; it might  
18 just be a matter of putting out a flyer or  
19 something that says at these hours you need to be  
20 aware that something is going on.

21 MS. MURPHY: Okay, that's all I had.

22 PRESIDING MEMBER PERNELL: I don't know,  
23 I mean it's -- give us an opportunity to discuss  
24 that.

25 MS. MURPHY: We can have dinner now.

1                   PRESIDING MEMBER PERNELL: Okay, any  
2 other questions for this witness?

3                   Any redirect?

4                   MR. ABELSON: I'm tempted to say no, but  
5 I think I'd like to just ask a few questions of  
6 Mr. Loyer. And I do this primarily in the hope  
7 that the position that you're taking as a staff  
8 will be a little clearer to everyone.

9                   REDIRECT EXAMINATION

10                  BY MR. ABELSON:

11                  Q     Pollution, in terms of a health problem  
12 is always a matter of enough bad stuff coming  
13 together at one time to be above a level that  
14 makes people sick, correct?

15                  MR. LOYER: It's typically a level and  
16 duration.

17                  MR. ABELSON: So, for example, on PM10  
18 if the good citizens of Manhattan Beach decide, on  
19 a cool winter evening, to burn a fireplace,  
20 they're putting some PM10 in the air, aren't they?

21                  MR. LOYER: From a fireplace, yes.

22                  MR. ABELSON: Is that fireplace, alone,  
23 or even a dozen of those fireplaces, alone, likely  
24 to cause any health problems to the citizens of  
25 Manhattan Beach?

1           MR. LOYER: Alone, and even a dozen  
2 alone, probably not. A hundred or 1000, yes,  
3 probably will contribute to an existing violation,  
4 or may even cause a violation in and of  
5 themselves.

6           MR. ABELSON: If the citizens of  
7 Manhattan Beach on a nice warm summer afternoon or  
8 evening decide they're going to have a barbecue in  
9 their backyard, do they put any PM10 out in the  
10 air?

11          MR. LOYER: Absolutely. With a barbecue  
12 with briquets, yes.

13          MR. ABELSON: That barbecue, by itself,  
14 nothing else going on, going to cause anybody a  
15 health problem in terms of the standards?

16          MR. LOYER: No. Might get watering eyes  
17 if you get in the smoke.

18          MR. ABELSON: Power plant's pretty big;  
19 puts out a lot of stuff.

20          MR. LOYER: Yes, it does.

21          MR. ABELSON: If there was nothing out  
22 there at all, no barbecues going on, no people  
23 having their fireplaces going on, no cars driving  
24 around back and forth to the supermarket to get  
25 food, that power plant by itself put out enough

1 PM10 to make anybody sick under the health  
2 standards?

3 MR. LOYER: No.

4 MR. ABELSON: So the truth is, and this  
5 is, I think, what you're trying to convey, is that  
6 the project causes a health problem, if at all, as  
7 part of a cumulative impact with many other  
8 sources of PM10, is that correct?

9 MR. LOYER: That's correct.

10 MR. ABELSON: And those sources come  
11 from all over that area, particularly when we're  
12 talking about Hawthorne. I think I understood Mr.  
13 Perkins to say the wind blows both ways in that  
14 region at various times of the day. Could be  
15 stuff coming from upwind, downwind, we don't know  
16 where, right?

17 MR. LOYER: That is essentially correct.

18 MR. ABELSON: And what I think you're  
19 trying to convey is that in this particular  
20 situation, the South Coast Air Quality Management  
21 District, who is the primary agency responsible  
22 for cleaning up that air, has tried to develop a  
23 program, a bank, that will try to deal with these  
24 collective problems throughout both that area, and  
25 throughout that region, is that correct?

1 MR. LOYER: That's correct.

2 MR. ABELSON: And I take it that when  
3 Mr. Perkins or any of the other good citizens from  
4 Manhattan Beach drive out to Newhall, for example,  
5 for an afternoon out in the high desert, they may  
6 be the recipients and the beneficiaries of the  
7 fact that some of the air was cleaned up in  
8 Newhall as a result of this, is that correct?

9 MR. LOYER: Yeah, under this scenario,  
10 yes, that would be correct.

11 MR. ABELSON: And under CEQA, because  
12 all of this is an issue not of LORS compliance,  
13 because we already have a clear determination that  
14 this does comply with the South Coast Air Quality  
15 Management District rules, under CEQA, does CEQA  
16 expressly recognize that when you've got a problem  
17 that's cumulative, which is what we've got, and  
18 you've got a solution that addresses the problem  
19 cumulatively, that that solution can be viewed  
20 properly as a legally adequate resolution of the  
21 problem?

22 MR. LOYER: That is my understanding of  
23 CEQA, yes.

24 MR. ABELSON: I have no further  
25 questions.

1 HEARING OFFICER SHEAN: Did you just ask  
2 him --

3 MS. MURPHY: I have one more --

4 HEARING OFFICER SHEAN: -- a legal  
5 question?

6 MR. ABELSON: No, I asked him whether --  
7 (Parties speaking simultaneously.)

8 HEARING OFFICER SHEAN: -- sounded like  
9 you were asking him --

10 MR. ABELSON: No, I --

11 HEARING OFFICER SHEAN: -- a legal  
12 question.

13 MR. ABELSON: -- just asked him  
14 whether --

15 MS. MURPHY: I have one question, one  
16 question --

17 MR. ABELSON: -- whether --

18 HEARING OFFICER SHEAN: Oh, okay, all  
19 right.

20 MR. ABELSON: -- he knew whether CEQA  
21 provided that or not, which is --

22 HEARING OFFICER SHEAN: All right.

23 MS. MURPHY: Bob may have more, but I  
24 have one more question.

25 MR. NICKELSON: Can I say something?

1 MS. MURPHY: All of us --

2 MR. NICKELSON: Yeah, I was feeling  
3 pretty good right up until I'm listening to the  
4 things that you were just saying, you know.

5 It was all established, I think, that  
6 327 tons are going to fall within a six-mile  
7 radius. You're talking about I'm going to feel  
8 good when I go to Newhall, and that what air,  
9 AQMD, you know, that the reserve credits and all  
10 of this are going to justify, you know, doing this  
11 facility.

12 Still we're going to, within a six-mile  
13 radius, which is (inaudible) -- we're going to  
14 still have a problem, because that PM10 is that  
15 327 tons of PM10 is going to fall on us. And  
16 that's a pound a day, I think you had 18, is what  
17 Bob just established --

18 MR. LOYER: A pound a person I think is  
19 what he came up --

20 MR. NICKELSON: So when you're saying  
21 then, what you're saying is hey, forget about  
22 everything, because I read the FSA, that's what  
23 made me concerned, because of all the problems  
24 that were identified in that, that we had to be --  
25 that we, the citizens of Manhattan Beach, as well



1 as the people, you know, living in Hawthorne and  
2 also working at the Chevron facility, you know.

3 There's health hazards to us. And now  
4 you're saying forget all that because AQMD is  
5 going to give us credits from Newhall, Sagus, out  
6 in the Valley and other places, still all that  
7 PM10 has been established. And I haven't  
8 forgotten that yet, that's going to fall on us.

9 So I was feeling all right about this up  
10 until, you know, you came back what you just said.

11 MR. LOYER: Just remember, that the  
12 sources that the District is going to get that  
13 from is part of the greater program. And that  
14 that program, while you may not be able to  
15 specifically go down and say, yeah, this project  
16 and that project, I'm going to take an emission  
17 reduction credit over here, and that's going to  
18 benefit these people, but not these, too.

19 You might be, you know, able to make  
20 that kind of determination, but basically, you  
21 know, when it comes down to it, the emission  
22 reduction credits come from all over the basin.  
23 Just like we've been saying. That includes El  
24 Segundo. El Segundo got quite a few, including  
25 Scattergood and some other power plant projects

1       that --

2               MR. NICKELSON: But you said the credits  
3       come from all over, but you weren't -- a little  
4       while ago you weren't able to identify any local  
5       credits that were being given --

6               MR. LOYER: For the priority reserve,  
7       yeah, that's true, you're right. That's true.

8               MR. NICKELSON: So, --

9               MR. LOYER: But remember the program,  
10      itself, every time somebody uses a credit out of  
11      that program, that perpetuates that program and  
12      encourages further emission reductions.

13              MR. NICKELSON: Yes, so if 300,000  
14      pounds come from elsewhere, all those people are  
15      going to be healthy while we're dying.

16              MR. LOYER: Everybody -- everybody's  
17      going to benefit from the program ongoing. Just  
18      because it's an economic incentive, everybody has  
19      an incentive to reduce their emissions and get  
20      money for these emission reduction credits.

21              MR. NICKELSON: Okay.

22              MR. LOYER: That's the way that program  
23      is set up to work.

24              MR. NICKELSON: I'm not here -- I'm  
25      certainly not here to stop, you know, this

1 facility from being built, you know, it's just  
2 that there definitely are questions, you know, and  
3 concern. And we neighbors -- we, as neighbors,  
4 have concerns about the air like you guys were  
5 fighting so strongly this morning, you know, for  
6 the biology, what you see as problems in the  
7 biology.

8 So, --

9 MR. LOYER: I just wanted to say a  
10 couple things. I do want to apologize for the  
11 other workshops that I was attending by phone  
12 where I really wasn't attending. I would have  
13 hoped to have been more proactive in those  
14 workshops.

15 And I hope that if nothing else, that  
16 everybody, all the public members in this  
17 audience, at least, are much more aware of the air  
18 that they're breathing and the institutions that  
19 have control over the emission reduction credits  
20 that are ongoing.

21 It's not just the District. It's also  
22 the California Air Resources Board, and EPA. They  
23 all have to work together.

24 MS. MURPHY: I have -- well, I would  
25 hope that you could reassure us by -- I can tell

1       you believe in this program, but I don't. And  
2       seeing that chart didn't help me believe in it,  
3       either.

4               How can you tell that that's the reason  
5       that pollution is going down, if it's going down?  
6       And are there studies you rely on? I mean, you  
7       can't make the finding you did unless you believe  
8       that this program is reducing credits. And I can  
9       tell by your talking, you do.

10              How can you convince me? Can you show  
11       me somewhere? Are there studies? Are there, I  
12       mean other than that chart which just shows the  
13       pollution may be going down. It could be other  
14       reasons.

15              MR. LOYER: The District has been  
16       making, you're right, there may be other reasons  
17       why a particular pollutant may be going down in a  
18       region. But if you look at all the different  
19       pollutants that are occurring here, particularly  
20       ozone and PM10.

21              We see that ozone and PM10 are both  
22       tending down; are both being pushed down.

23              The --

24              MS. MURPHY: But is there a study that's  
25       backed out other sources of pollution things, and

1 can you --

2 MR. LOYER: The only controls that have  
3 been pushed onto those particular pollutants that  
4 cause PM10 and cause ozone formation are the  
5 programs that the Districts have been putting in  
6 place. Plus some from EPA and ARB.

7 MS. MURPHY: You mean the credits  
8 program, the buying of credits program? That's  
9 the only program that --

10 MR. LOYER: The buying of credit  
11 program --

12 MS. MURPHY: -- that reduces PM10s and  
13 all --

14 MR. LOYER: -- and reclaim, as well.

15 MS. MURPHY: -- of the -- that's the  
16 only program that reduces PM10s in the basin?  
17 There's nothing else that might do it?

18 MR. LOYER: So far that's been the only  
19 thing that's been implemented.

20 MS. MURPHY: People not using charcoal,  
21 for example, wouldn't have any effect on it?

22 MR. LOYER: The District has been doing  
23 their best to restrict the use of charcoal.

24 MS. MURPHY: Oh, so that could do it,  
25 instead of the buying of credits? I'm saying the

1 credit program --

2 MR. LOYER: That -- absolutely.

3 MS. MURPHY: You're saying the credit  
4 program --

5 MR. LOYER: And plus it should --

6 MS. MURPHY: -- you believe in. I'm  
7 saying I don't believe --

8 MR. LOYER: -- you should understand, as  
9 well, that --

10 MS. MURPHY: -- in it --

11 PRESIDING MEMBER PERNELL: Wait a  
12 minute, --

13 HEARING OFFICER SHEAN: Hey, hey --

14 (Parties speaking simultaneously.)

15 HEARING OFFICER SHEAN: Stop.

16 PRESIDING MEMBER PERNELL: All right, a  
17 question and an answer, a question and an answer,  
18 please.

19 MS. MURPHY: How can you see, that chart  
20 doesn't show me, how can -- I mean can you show me  
21 a study? I'll be glad to look it up. I want  
22 reassurance that the credit program, that the  
23 buying of credits in Newhall is actually making  
24 the whole South Coast basin better, because I  
25 don't believe it. And I want you to convince me

1       that I'll feel better.

2               MR. LOYER: I'm not sure if the District  
3       has such a study put together. I'm pretty --

4               MS. MURPHY: Then how -- then --

5               MR. LOYER: -- sure that they do.

6       But, --

7               MS. MURPHY: You've never seen such a  
8       study?

9               MR. LOYER: I can't --

10              MS. MURPHY: And you base your beliefs  
11       that --

12              MR. LOYER: -- bring it up to my --

13              MS. MURPHY: -- you base your beliefs  
14       that the --

15              MR. LOYER: -- memory at this point.

16              HEARING OFFICER SHEAN: All right, this  
17       is not working.

18              PRESIDING MEMBER PERNELL: If you don't  
19       know that they have a study, say I don't know. If  
20       you think that they have a study, and perhaps we  
21       can ask the District whether they have a study and  
22       get it to --

23              MR. REEDE: Why don't we ask the  
24       District.

25              PRESIDING MEMBER PERNELL: Is the

1 District --

2 MR. LOYER: Yeah, I don't -- at this  
3 point --

4 (Parties speaking simultaneously.)

5 PRESIDING MEMBER PERNELL: So you guys  
6 have such a study?

7 MR. LOYER: -- I just cannot -- I cannot  
8 remember if there is a study or not for this Air  
9 District.

10 MS. MURPHY: So why do you believe that  
11 this program's working?

12 MR. LOYER: Because there is nothing  
13 else that is controlling these emission sources.  
14 These programs, the NSR programs --

15 MS. MURPHY: You just told me -- I  
16 just -- I just mentioned --

17 MR. LOYER: -- are the only thing that  
18 are controlling it.

19 MS. MURPHY: I just mentioned charcoal  
20 and you said that that's one.

21 MR. LOYER: The District is controlling  
22 that.

23 MS. MURPHY: But I'm not talking about  
24 charcoal, I'm talking about credits, which is the  
25 whole reason you're saying mitigating different



1       because they bought credits. How do you believe  
2       in credits if you have never seen a study that  
3       says that the credits are doing it?

4               MR. LOYER: The District's programs are  
5       not just restricted to the NSR program, itself.  
6       The District takes the NSR program, that's one  
7       approach that they use to control the emissions to  
8       produce an -- to control the emission sources in a  
9       way that is not economic death for the area.

10              The other ways that they control these  
11       emission sources are by the myriad of different  
12       rules that they have on their books. And these  
13       different rules are all contributing to reducing  
14       the emissions in the South Coast Air Basin.

15              One of these rules is actually 1309.1,  
16       the priority reserve. By the act of purchasing  
17       the priority reserve credits, the District will  
18       take that money and turn around and pour it into  
19       programs that would address sources that would  
20       otherwise be uncontrolled.

21              PRESIDING MEMBER PERNELL: Okay.

22              HEARING OFFICER SHEAN: Okay.

23              PRESIDING MEMBER PERNELL: Any other  
24       questions?

25              MS. MURPHY: Yes, yeah, I'm sorry, is my

1 question going to be answered? I get the  
2 impression that someone's going to --

3 PRESIDING MEMBER PERNELL: Well, I --

4 HEARING OFFICER SHEAN: Well, apparently  
5 it can't be answered to the satisfaction at the  
6 moment that you flip from being skeptical to being  
7 reassured.

8 MS. MURPHY: No, I'm asking to be  
9 reassured, and I have seen no reason to be  
10 reassured.

11 HEARING OFFICER SHEAN: Well, I think  
12 that has as much to do with you as the testimony  
13 of the witness.

14 MS. MURPHY: Well, the testimony then,  
15 let me make sure I understand it, is that you have  
16 no reason to believe that the credit program is  
17 lowering pollution. And yet you have allowed the  
18 applicant to not mitigate at all other than the  
19 credit program?

20 MR. ABELSON: I object to that. That  
21 completely --

22 MS. MURPHY: Well, that's what I heard.  
23 I'm sorry, --

24 MR. ABELSON: -- that -- that --

25 MS. MURPHY: If you can give me a

1 reason, I'd like one.

2 MR. ABELSON: -- mischaracterizes and  
3 misstates what he did say.

4 MS. MURPHY: Well, I'd like him to  
5 explain it then, because that's what I heard.

6 MR. ABELSON: Well, that's been asked  
7 and answered about five times now, with all  
8 respect --

9 MS. MURPHY: Could you explain it to me?

10 HEARING OFFICER SHEAN: No, no. We're  
11 not going to do that. Because you've asked him  
12 the basis and he's telling you that the program  
13 that the District has he believes, over time, and  
14 with it essentially continuing forward, reduces  
15 District-wide, the pollution levels. And that  
16 based upon the graph that they had presented, that  
17 that's evidence of that. And that the only thing  
18 that the programmatic control of that is what's  
19 leading to the decline of the emissions.

20 That's his testimony. And he's repeated  
21 that several times. And if that --

22 MS. MURPHY: I thought he was telling me  
23 that there are many programs the District does,  
24 talking about charcoal, that's a little one, many  
25 others. And you're saying that you cannot take

1 out the credit program and see if that is reducing  
2 it. But you believe, you believe it without  
3 having --

4 MR. ABELSON: Objection. This has been  
5 asked and answered five times. And we're getting  
6 cumulative, and it's also just badgering the  
7 witness. Basically he said what his answer is and  
8 that's his answer.

9 HEARING OFFICER SHEAN: Okay.

10 MS. MURPHY: Thank you.

11 HEARING OFFICER SHEAN: Thank you.

12 Before we take a break, why don't we see if there  
13 are some comments that the District would like to  
14 offer.

15 We're very happy that you're here. We  
16 appreciate the work that you put into the FDOC and  
17 the follow-up matters that involved the staff. I  
18 know this has been a fairly long undertaking for  
19 you, and we'd like to both thank you, and then  
20 give you the opportunity, if you wish to use it,  
21 to say anything more that you'd like to say.

22 MR. YEE: Good evening, Hearing Officer  
23 Shean, my name is John Yee. I am a Senior Air  
24 Quality Engineer with the South Coast Air Quality  
25 Management District. And I do have staff here

1       available with me. His name is Ken Coats. He's  
2       the Staff Engineer for this project.

3               I'd like to take this opportunity to  
4       perhaps answer a few comments which have occurred  
5       over the last few hours on air quality. And if I  
6       don't get to all the comments, we are available  
7       here to answer those, if I forget exactly what the  
8       comments -- any particular questions that the  
9       people might have.

10              To answer the one question that was the  
11       most recent, whether or not the District -- what  
12       kind of proof does the District have that the  
13       measures, or the rules and regulations that the  
14       District imposes on the industries here in the  
15       South Coast Air basin have reduced emissions,  
16       although I am not personally involved in the  
17       studies, I believe the District has studies, and  
18       can make available these studies for anybody who  
19       would like to take a look at them.

20              They do indicate trends throughout the  
21       years. We have studies for, I believe, it goes  
22       back to probably the early '80s where we do like  
23       the ambient air quality for the different regions  
24       in the basin, and it has shown trends that the  
25       level of criterion pollutants and ozones have been

1 decreasing. I personally don't know exactly how  
2 much, but the studies will show that.

3 And to go further on what Mr. Loyer had  
4 indicated is that it's not necessarily one  
5 specific program which accomplishes this. The NSR  
6 program, new source review program, NSR, is a  
7 portion, a larger portion of this program which we  
8 use to implement the reductions.

9 But we do have source-specific rules.  
10 We have rules concerning toxics. We have rules  
11 concerning -- well, to some degree we did have  
12 rules which put limitations not necessarily on  
13 mobile sources, but the uses of mobile sources.

14 And perhaps we did put limitations on the  
15 fuels that mobile sources use for this region.

16 So, it's multifaceted as far as how we  
17 achieve these reductions. But NSR is the -- our  
18 new source review is the major vehicle in which  
19 we've accomplished these.

20 I did want to -- Mr. Perkins had some  
21 specific questions on NSR, and he did admit in the  
22 testimony, I believe it was rule 1309. And yes,  
23 that is our rule that we use to determine emission  
24 reduction credits. And for this particular  
25 facility, they are using the shutdown of boilers 1

1 and 2 to offset the emissions increase due to the  
2 new turbines.

3 The vehicle that we quoted in our FDOC  
4 was that they were using a 1304 exemption, which  
5 is a concurrent facility modification, which  
6 allows this to happen, provided we take certain  
7 steps to verify that these emissions are real and  
8 quantifiable.

9 And in our FDOC we did take a look at  
10 that and found that the emissions that were  
11 quantified during these emission shutdowns were,  
12 indeed, allowable under our rules. But it didn't  
13 necessarily have to do with rule 1309. It was the  
14 1304 exemption.

15 I don't have anything else directly in  
16 particular, but I would have, and I will answer  
17 any questions if there are any questions.

18 PRESIDING MEMBER PERNELL: Well, I have  
19 a, maybe not a question but a request. Could you  
20 give your card to -- I forget your name --

21 HEARING OFFICER SHEAN: Perkins and  
22 Murphy.

23 MR. REEDE: Ms. Murphy.

24 PRESIDING MEMBER PERNELL: -- and see if  
25 you can get her the studies to relieve some of the

1       uncertainty on whether or not the District is  
2       actually lowering some of the pollutants, --

3               MR. YEE:   Yes, I will.

4               PRESIDING MEMBER PERNELL:  -- if those  
5       studies exist?

6               MR. YEE:   On behalf of the District,  
7       yes, I will.

8               PRESIDING MEMBER PERNELL:  Thank you.

9               HEARING OFFICER SHEAN:  Do you have a  
10      question?

11              MR. PERKINS:  I do have a couple of  
12      questions.

13              HEARING OFFICER SHEAN:  Okay.

14              (Pause.)

15              MR. PERKINS:  Mr. Yee, did you review  
16      the -- you know that I asked the question of you  
17      and Mr. Coats about the shutdown of plants 1 and  
18      2.  Did you review the response that Mr. Coats  
19      gave to me.

20              MR. YEE:   Yes, I did look at the  
21      response.

22              MR. PERKINS:  Do you agree with it?

23              MR. YEE:   If I could just review it  
24      again?

25              MR. PERKINS:  Sure.  I have one copy;



1       you can look at it.

2               MR. YEE: Is there a particular passage  
3       that you're referring to?

4               MR. PERKINS: Well, the part addressing  
5       the shutdown of units 1 and 2 is paragraph four of  
6       this email.

7               I can read it so that those who argue  
8       and me know what we're talking about.

9               Mr. Coats said: As I mentioned above,  
10       the applicant will not be able to double-count  
11       ERCs for this project, or for that matter any  
12       other project. The applicant was required to  
13       provide a rule 2009 compliance plan to the  
14       District by December 31st of 2002.

15               In their plan ESPR indicated that they  
16       would achieve the required emission limits by  
17       either using existing technology with no  
18       additional control, or in the case of units 1 and  
19       2, a complete shutdown.

20               Please note that the equipment is being  
21       shut down primarily due to the construction of the  
22       new CTGs. Therefore, the credits will be used to  
23       offset emissions from the new equipment.

24               In the case of ESPR boilers 1 and 2,  
25       ESPR had the intent of shutting these units down

1 primarily because the CTGs were being built. This  
2 was their intent from the beginning.

3 The rule 2009 compliance requirement  
4 happens to coincide with their plan to shut down  
5 the boilers, since their intent was to shut the  
6 boilers down for purposes of generating credits  
7 for the new CTGs, we are allowing them to obtain  
8 ERCs for the boiler shutdown, in the event the  
9 CTGs are not built.

10 But generally speaking, if a rule  
11 requires an applicant to take measures to reduce  
12 emissions through add-on controls or a shutdown,  
13 then the applicant cannot receive credit for those  
14 emissions.

15 The ESPR case is somewhat clearer due to  
16 its complexity. The rule 2009 requirement is not  
17 the primary reason for the shutdown, and  
18 therefore, that being the case, ESPR is being  
19 afforded the opportunity to apply for ERCs if they  
20 decide not to go through with the project.

21 Are you in agreement with that?

22 MR. YEE: Yes, I am.

23 MR. PERKINS: Okay. So, let me get this  
24 right. Contrary to what Mr. Loyer thought, it  
25 doesn't matter whether you're under 1304 or 1309,

1 if generally speaking if a rule requires an  
2 applicant to take down measures -- to take  
3 measures to reduce emissions through a shutdown,  
4 then the applicant can't receive credit for those  
5 emissions, that's right?

6 MR. YEE: That's true, but I did want to  
7 preface that 2009 requires then to submit a plan  
8 for reduction of NOx emissions from their facility  
9 by --

10 MR. PERKINS: Right, right.

11 MR. YEE: -- by implementing BARCT or  
12 BARCT, --

13 MR. PERKINS: Right.

14 MR. YEE: -- best available retrofit  
15 control technology. It did not require them to  
16 shutdown their equipment.

17 MR. PERKINS: It was either/or, though,  
18 right? They had to either implement some of the  
19 new technology or shut down the equipment?

20 MR. YEE: It was either they had to,  
21 well, I won't say shutdown the equipment, they had  
22 to produce documentation that they would either --  
23 that they would control their equipment to BARCT  
24 levels.

25 If they so decided to put on control

1 equipment, then we would have accepted the plan.  
2 If they so decided to shut it down, we accepted  
3 their plan. We did not request them to shut down  
4 their equipment.

5 MR. PERKINS: Understand.

6 HEARING OFFICER SHEAN: All right, any  
7 other party have questions of the District?

8 Thank you, gentlemen, for coming. We  
9 appreciate it.

10 PRESIDING MEMBER PERNELL: Thank you.

11 HEARING OFFICER SHEAN: Okay, we're  
12 about at 6:30. We know you have some additional  
13 cross on public health, which maybe if we have a  
14 dinner break you can see if you can pare down to  
15 the essentials.

16 Then we have visual impact information  
17 to do later. We'd like to try to wrap the topics  
18 up that we have for today.

19 Did we have any members of the public  
20 who have come in and have a desire to make a  
21 comment? Okay, apparently not.

22 (Pause.

23 PRESIDING MEMBER PERNELL: Can we go off  
24 the record.

25 (Off the record.)

1           PRESIDING MEMBER PERNELL:  Wait a  
2       minute, we're back on the record.

3           HEARING OFFICER SHEAN:  All right, it's  
4       6:30 now, we're going to take a 15-minute break  
5       and return and do the cross-examination on public  
6       health.

7           (Whereupon, at 6:36 p.m., the hearing  
8       was adjourned, to reconvene at 6:45  
9       p.m., at this same location.)

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EVENING SESSION

6:55 p.m.

PRESIDING MEMBER PERNELL: Back on the  
record. Mr. Shean.

HEARING OFFICER SHEAN: Okay, Mr.  
Perkins, may we have your examination now of the  
staff witness on public health, please.

MR. PERKINS: Okay.

CROSS-EXAMINATION

BY MR. PERKINS:

Q So, Dr. Odoemelum, am I pronouncing your  
name right?

DR. ODOEMELAM: Yeah, that's close  
enough.

MR. PERKINS: Close enough, how about if  
I call you Doctor?

DR. ODOEMELAM: No, just call me Obed.

MR. PERKINS: Obed.

MR. ABELSON: Obed.

MR. PERKINS: Obed. I apologize for my  
clumsiness there. This laws, ordinance or  
regulation Health and Safety Code 41700, this  
actually is copied from your part of the FSA, and  
you agree that that is an applicable LORS?

1 DR. ODOEMELAM: Yes, I do.

2 MR. PERKINS: Is PM10 a carcinogen? A  
3 known carcinogen?

4 DR. ODOEMELAM: Not by itself, but --

5 MR. PERKINS: No? Hmm. Go ahead.

6 DR. ODOEMELAM: -- unless it has some  
7 adsorbents on it. If it has carcinogens that  
8 adsorbed onto it, but not by itself.

9 MR. PERKINS: And does it typically have  
10 that in Los Angeles air basin when you breathe  
11 PM10s?

12 DR. ODOEMELAM: It depends on the  
13 source. If it is from distillate gas, for  
14 instance, it will have some carcinogens -- to it,  
15 but if it's from a facility like this that uses  
16 natural gas, then you worry about its physical  
17 presence, by itself. That's where the impacts are  
18 from, it's physical presence --

19 (Pause.)

20 HEARING OFFICER SHEAN: Go ahead.

21 DR. ODOEMELAM: Okay, again, the health  
22 impacts of PM10 or particulate matter, for that  
23 matter, it's just a little uncertainty. But we  
24 try to make a distinction between its impacts as a  
25 respiratory system irritant by itself, by its

1 physical presence, as opposed to any cancer that  
2 it would cause because of carcinogens that may be  
3 adsorbed onto the surface.

4 MR. PERKINS: So the reason it's on the  
5 criterion list is what? What's the health hazard?

6 DR. ODOEMELAM: Is for the noncancer  
7 risk, and that's mostly from irritation --

8 MR. PERKINS: So it leads to what, COPD?  
9 Stuff like that?

10 DR. ODOEMELAM: In some cases, yes.

11 MR. PERKINS: Inflammation?

12 DR. ODOEMELAM: Yes. In many cases,  
13 yes.

14 MR. PERKINS: Are any of the other  
15 criterion emittants from this power plant, to your  
16 knowledge, carcinogens?

17 DR. ODOEMELAM: The criteria pollutants,  
18 no. The big distinction between the criteria and  
19 noncriterial pollutants is that while many of the  
20 noncriterial pollutants, which we call air toxics,  
21 are carcinogens, the criterial pollutants are  
22 generally not regarded as carcinogens. They have  
23 noncancer health impacts that we use for the air  
24 standards.

25 MR. PERKINS: With respect to



1 carcinogens, is it correct that there is no safe  
2 minimum exposure to a carcinogen?

3 DR. ODOEMELAM: Under the present  
4 understanding, yes. Yes. There's a risk, albeit  
5 theoretical risk, that's associated with every  
6 exposure to a carcinogen.

7 MR. PERKINS: Each exposure increases  
8 the cancer risk?

9 DR. ODOEMELAM: Yes, but important thing  
10 again is the significance of that risk. That's  
11 the basis for its regulation.

12 MR. PERKINS: Significance in the sense  
13 of how many people per million are going to catch  
14 it, is that what you mean?

15 DR. ODOEMELAM: Well, no, the risk by  
16 itself. For instance, the risk of probability of  
17 cancer, you have one in a million chance, for  
18 instance, which is one of the criteria that we  
19 use.

20 MR. PERKINS: You actually use ten in a  
21 million, don't you?

22 DR. ODOEMELAM: Well, it depends on what  
23 you're using it for.

24 MR. PERKINS: All right. In this  
25 particular case you would recommend specific

1 mitigation if the cancer risk were ten in a  
2 million?

3 DR. ODOEMELAM: Yes, that's for  
4 mitigation purposes. Usually we have two levels  
5 of analysis. In a screening level analysis, if  
6 the risk is one in a million, then you --

7 MR. PERKINS: I'm sorry, for what?

8 DR. ODOEMELAM: If the risk is one in a  
9 million in our regular, in the first cut of it,  
10 which is the screening level analysis, if the risk  
11 is one in a million, then there would be no more  
12 analysis.

13 But then if it's more than one in a  
14 million then we do more refined analysis. And if  
15 it's more than ten in a million, then we have to  
16 look at it for recommended mitigation.

17 MR. PERKINS: So let me ask you what one  
18 in a million means. Does that mean that one  
19 person out of every million in the affected  
20 population would catch cancer and die of cancer?  
21 What does it mean?

22 DR. ODOEMELAM: Well, it means two  
23 things. One is that your chance, as an individual  
24 of catching cancer is one in a million.

25 MR. PERKINS: Increased, as a result of

1       this --

2               DR. ODOEMELAM: Incremental risk of  
3 cancer. Again, the problem here is trying to  
4 understand what that means.

5               MR. PERKINS: Right.

6               DR. ODOEMELAM: The way this cancer risk  
7 is calculated and as we've tried to explain in our  
8 analysis, these are really not real risks. I mean  
9 we try to put an upper bound on these numbers to  
10 insure that we don't underestimate the risk.

11              And it's almost certain that the risk  
12 would be low; and in many cases, maybe zero.

13              MR. PERKINS: Let me stay with trying to  
14 find out what one in a million means. So my risk  
15 would be increased by one in a million of catching  
16 cancer over what period of time?

17              DR. ODOEMELAM: Seventy-year lifetime.

18              MR. PERKINS: Seventy-year lifetime?

19              DR. ODOEMELAM: Seventy years, yes, and  
20 that --

21              MR. PERKINS: And that is if I was  
22 exposed to this level of pollutant for the entire  
23 70 years?

24              DR. ODOEMELAM: At the highest  
25 concentration possible, which is what we use.

1           MR. PERKINS: Now, you used the one in a  
2 million, and one in ten million -- excuse me, one  
3 in a million or ten in a million criteria --  
4 standard to decide whether to do further review,  
5 or whether to require mitigation.

6           DR. ODOEMELAM: We used one in a million  
7 to determine from a screening level analysis  
8 whether more analysis is necessary. Then ten in a  
9 million, we use to set the need for any specific  
10 mitigation over and above what is proposed.

11          MR. PERKINS: Now you used those numbers  
12 regardless of how dense the population is around  
13 the emitter, is that correct?

14          DR. ODOEMELAM: Yes. The one thing that  
15 siting a source in a public area is that you have  
16 the possibility of up to a million people being  
17 exposed, so that it's just a matter of one person  
18 in one million having cancer. As opposed to your  
19 chance being one in a million of catching cancer.  
20 That would assess the risk whether the source is  
21 in a populated area or in the desert.

22          MR. PERKINS: It's certainly true that  
23 if you put one power plant in the middle of the  
24 desert, let's use a hypothetical desert with one  
25 guy in it, and you put another power plant in the

1 middle of a city with ten million guys in it, for  
2 the same level of emissions you're going to have  
3 more health risk in the city, isn't that true?

4 DR. ODOEMELAM: Well, we still have to  
5 have a way to put the risk in perspective.

6 MR. PERKINS: I'm sorry, move to strike  
7 as nonresponsive. Yes or no? Is it going to be  
8 more hazardous to the health of people if you put  
9 it in a highly populated area, or if you put it in  
10 the desert?

11 DR. ODOEMELAM: Well, it's more in the  
12 sense that more people will be exposed. But,  
13 again, we have to analyze the risk, we have to  
14 look at the risk some way whether it's in the  
15 desert or in a populated area.

16 MR. PERKINS: When you say you have to,  
17 you mean your regulations require you to?

18 DR. ODOEMELAM: Well, consideration  
19 trying to put the risk in perspective.

20 Now, this should be seen against the  
21 backdrop of a background risk of 250,000 in a  
22 million. So if an individual in the desert will  
23 look at the facility and say, well, there's an  
24 added risk of one in a million.

25 But if it's in the big city we say that

1 if a million people are exposed, then there's the  
2 chance that one extra cancer would occur.

3 Against a background of 250,000 in a  
4 million cancers that as a background level.

5 MR. PERKINS: Did you conduct any study  
6 of the PM2.5 effect on public health with respect  
7 to this power plant?

8 DR. ODOEMELAM: In the other testimony  
9 that we prepared we have a section in which we  
10 address all the criteria pollutants. And PM10 is  
11 one of them.

12 MR. PERKINS: I'm sorry, if I said PM10,  
13 I misspoke.

14 DR. ODOEMELAM: PM2.5, excuse me.

15 MR. PERKINS: PM2.5, as you heard Mr.  
16 Loyer say, is not a criterion pollutant, and so he  
17 didn't study it. Did you?

18 DR. ODOEMELAM: No, that's not what Mr.  
19 Loyer said. He said that the standard has not  
20 been established; it hasn't gone through the  
21 regular process before there are standards for  
22 PM2.5.

23 MR. PERKINS: The record will show what  
24 Mr. Loyer said. Let me rephrase the question.  
25 Did you study, you personally study PM2.5

1 pollution?

2 DR. ODOEMELAM: Yes, I have loads of  
3 studies on --

4 MR. PERKINS: On this plant?

5 DR. ODOEMELAM: For this facility?

6 MR. PERKINS: Yes.

7 DR. ODOEMELAM: Yes, I did, yes.

8 MR. PERKINS: Okay, and where is your  
9 report on PM2.5 found?

10 DR. ODOEMELAM: That's what I'm telling  
11 you. Usually we have an appendix, but it was not  
12 appended to this because at the time we wrote this  
13 testimony we was still in the process of trying to  
14 address the court case that was talked about  
15 earlier about establishing the PM2.5 standard. So  
16 there was no operation of PM2.5 standard --  
17 analysis.

18 MR. PERKINS: So you've done an analysis  
19 of PM2.5 with respect to the El Segundo Power  
20 Plant, but nobody's seen it yet?

21 DR. ODOEMELAM: No, PM2.5 and PM10, the  
22 difference in the health impacts are part of our  
23 basic knowledge; they're part of the things we  
24 have to determine in the conducting the analysis.

25 The only difference is at the time of

1       this analysis we used PM10 standard, because that  
2       was the standard operational. But we now  
3       considered PM2.5, especially since it is now been  
4       established to be more of a health hazard than  
5       PM10.

6               MR. PERKINS: And, Doctor, I just want  
7       to be sure I get this right. If I look at all of  
8       the reports that have been published by the staff,  
9       there is no report on PM2.5, you're aware of that?

10              DR. ODOEMELAM: I can give you testimony  
11       for any more than four or five other projects that  
12       I've done in the last --

13              MR. PERKINS: I'm sorry, I may be  
14       misleading. I'm just talking about this project,  
15       the one that we're here, you're testifying about  
16       today, El Segundo Power Repowering.

17              And my question is is there a written  
18       report regarding PM2.5?

19              MR. ABELSON: Let me just object for  
20       clarification because if I understood what I think  
21       I did from Dr. Odoemelam, the answer is yes, he's  
22       done one, and it is not part of the FSA, is that  
23       correct, Dr. Odoemelam?

24              DR. ODOEMELAM: Yes, it's not in the --

25              MR. ABELSON: So there is a report.



1 DR. ODOEMELAM: It's in appendix A that  
2 we have for the projects.

3 HEARING OFFICER SHEAN: Well, but that  
4 wasn't the question. If we can just use the  
5 addition of the word published, that amongst the  
6 material that the staff has published on -- all  
7 the material published by the staff, is there or  
8 is there not, in this particular proceedings, a  
9 report on PM2.5?

10 DR. ODOEMELAM: No.

11 HEARING OFFICER SHEAN: Okay.

12 MR. PERKINS: Is it fair to say,  
13 Dr. -- well, would it be fair to ask you how many  
14 people will die in the County of Los Angeles as a  
15 result of this power plant being built?

16 DR. ODOEMELAM: There's no way of making  
17 that determination.

18 MR. PERKINS: But if this power plant  
19 operates for 50 years, as the last one did, it  
20 would be fair to assume that someone will, hmm?

21 DR. ODOEMELAM: No, that would not be a  
22 fair assumption.

23 HEARING OFFICER SHEAN: Well, he hasn't  
24 finished his question.

25 MR. PERKINS: Actually, I have.

1 HEARING OFFICER SHEAN: Did you?

2 DR. ODOEMELAM: Yeah, he --

3 HEARING OFFICER SHEAN: Would it be fair  
4 to assume --

5 MR. PERKINS: Someone will die as a  
6 result of the pollutants --

7 HEARING OFFICER SHEAN: Oh, someone --  
8 we just didn't hear it over here.

9 MR. PERKINS: -- emitted from this power  
10 plant.

11 MR. ABELSON: It's been answered.

12 MR. PERKINS: Yeah. Are you prepared to  
13 say with certainty that no one will?

14 DR. ODOEMELAM: You mean with respect to  
15 PM10 exposure?

16 MR. PERKINS: No, with respect to  
17 pollutants in general from this plant.

18 DR. ODOEMELAM: No, I couldn't tell.  
19 That's what I was saying in the analysis.

20 MR. PERKINS: I accept that. I would  
21 like to see published, so that I don't only me see  
22 it, everyone involved sees the PM2.5 analysis that  
23 has been done.

24 I have no more questions of this  
25 witness.

1 DR. ODOEMELAM: I'll be glad to send a  
2 copy to you. It's in appendix A that we use for  
3 the facilities.

4 MR. ABELSON: More importantly, we want  
5 to basically file it in the entire docket. I  
6 think there may have been an oversight here that's  
7 clerical more than anything else.

8 HEARING OFFICER SHEAN: Well, just so we  
9 can address whether or not there's a reason  
10 potentially to come back on it.

11 Are the results of your study on PM2.5  
12 lead you to believe that there's a potential  
13 health impact from the PM2.5 emissions of the  
14 proposed facility?

15 DR. ODOEMELAM: No, not to the extent  
16 that the emissions have been mitigated according  
17 to standards that staff relies upon.

18 HEARING OFFICER SHEAN: And that  
19 mitigation is what?

20 DR. ODOEMELAM: The offsets package from  
21 the air quality section that were discussed. That  
22 is usually adequate for us, to the extent that the  
23 offsets package is by air quality staff and seen  
24 to be adequate.

25 HEARING OFFICER SHEAN: So the PM10

1 offsets and mitigation are, in your opinion,  
2 sufficient to address the PM2.5 emissions?

3 DR. ODOEMELAM: Yes, it is.

4 MS. MURPHY: May I have some questions?

5 HEARING OFFICER SHEAN: Sure.

6 CROSS-EXAMINATION

7 BY MS. MURPHY:

8 Q I'm confused. I thought that PM10s, and  
9 especially PM2.5s are not benign; that they have a  
10 large suite of toxic organic compounds as well as  
11 some toxic metals from the combustion of natural  
12 gas, is that true?

13 DR. ODOEMELAM: Not from natural gas,  
14 no.

15 MS. MURPHY: They do not have what I'm  
16 reading to you, they do not have any toxic metals  
17 or toxic organic compounds?

18 DR. ODOEMELAM: No, there are toxic  
19 metals that are not necessarily associated with  
20 PM, with the particulate --

21 MS. MURPHY: Oh, I'm sorry, --

22 DR. ODOEMELAM: -- yeah, those are  
23 different.

24 MS. MURPHY: -- but the combustion of  
25 natural gas --

1 DR. ODOEMELAM: Oh, yes, --

2 MS. MURPHY: -- creates toxic metals and  
3 toxic --

4 DR. ODOEMELAM: We listed them.

5 MS. MURPHY: And would you agree with  
6 the statement of, oh, let me see, Health Effects  
7 Institute, that as many as 60,000 Americans die  
8 each year from particulate pollution?

9 DR. ODOEMELAM: Yes, we've seen those  
10 studies.

11 MS. MURPHY: Do you believe it, or do  
12 you disagree with that?

13 DR. ODOEMELAM: Well, I believe that  
14 there are lots of uncertainty, but I don't  
15 particularly believe the numbers that they're --

16 MS. MURPHY: But certainly you would  
17 believe that some number of Americans die from  
18 particulate pollution each year, right?

19 DR. ODOEMELAM: Yes. The EPA believes  
20 that.

21 MS. MURPHY: Right. And some of them  
22 die in the Los Angeles basin because this is the  
23 most polluted --

24 DR. ODOEMELAM: Yes.

25 MS. MURPHY: -- there is? Okay. Just

1       checking, because -- are you aware of a study  
2       by --

3               HEARING OFFICER SHEAN:  Ms. Murphy, can  
4       we just take a break here --

5               MR. REEDE:  Excuse me, --

6               HEARING OFFICER SHEAN:  -- in the  
7       proceedings --

8               MR. REEDE:  -- may I interrupt the  
9       proceedings for Commissioner Pernell's --

10              (Laughter.)

11              (Off the record.)

12              HEARING OFFICER SHEAN:  Let's go again,  
13       all right, Ms. Murphy.

14              MS. MURPHY:  Okay, are you aware of a  
15       study by the Johns Hopkins School of Public Health  
16       that says that the smaller particles, PM2.5s  
17       penetrate more deeply into the lungs and cause,  
18       even in very small quantities, large health  
19       effects?

20              DR. ODOEMELAM:  Yes.  Let me preface  
21       this by saying that the PM2.5 issue is the biggest  
22       thing now in outdoor air pollution.  We have  
23       almost 200 journal articles.  And in the Morro Bay  
24       case we had boxes and boxes of information.

25              MS. MURPHY:  All the studies.

1 DR. ODOEMELAM: So these are things that  
2 I deal with on a continuous basis.

3 MS. MURPHY: But are you disagreeing  
4 with that?

5 DR. ODOEMELAM: No, I agree with it.  
6 That's a big part of the uncertainty. And that's  
7 why the EPA and Air Resources Board is in the  
8 process of changing the standard from that of PM20  
9 to PM2.5.

10 MS. MURPHY: Am I correct that in 1987  
11 or before that they didn't even think that PM10s  
12 were a problem, because they thought you had to be  
13 really big to be a problem? And then they went,  
14 oops, it's little ones. And then they discovered  
15 PM10 wasn't little enough, PM.5; and it may well  
16 be that 20 years from now we'll discover that even  
17 smaller particles are the ones that are really  
18 causing a problem. Am I accurate? It may be  
19 speculation, but it sounds --

20 DR. ODOEMELAM: No, you are accurate,  
21 and that's also what was said in the analysis.  
22 These pollution standards are set; more  
23 information is known; and then the standards are  
24 revised accordingly.

25 MS. MURPHY: The numbers in that Johns

1 Hopkins study indicate that in a city averaging  
2 100 deaths a day, you can add one more death for  
3 each particle rise of 20 mcg/cubic meter over 24  
4 hours. In Los Angeles we average 148 deaths a  
5 day, so that means a dead person a day for every  
6 20, I mean that's not saying this power plant does  
7 that, but are those accurate figures?

8 DR. ODOEMELAM: Well, the one thing one  
9 can say about that is that that is part of the  
10 body of information that crests this big  
11 uncertainty about how we're regulating particulate  
12 matter.

13 But we can't rely on any one study for  
14 one project, and then try to make changes. We  
15 have to go through the nominal process --

16 MS. MURPHY: Sure. Try one more study.  
17 There is a study from the Keck School of Medicine  
18 at USC and published in "The American Journal of  
19 Respiratory and Critical Care Medicine" that talks  
20 about California, young people, teenagers, that  
21 moved away and their lungs got better. Or if they  
22 moved to high areas of pollution, their lungs got  
23 worse. In other words, growing teenagers have  
24 special problems, or specially sensitive receptors  
25 because of their growing lungs. Do you agree in



1 principle with that study? I'm not doing any  
2 numbers, just that that's, in fact, true?

3 DR. ODOEMELAM: Yes, I've seen that  
4 study and about 20 or 30 more like it.

5 MS. MURPHY: Right.

6 DR. ODOEMELAM: This is a big issue.

7 MS. MURPHY: And I mentioned earlier,  
8 talking to Mr. Loyer, that this particular power  
9 plant is situated in a place where many teenagers  
10 exercise very vigorously.

11 Would you consider that some kind of  
12 special condition that you might want to consider  
13 when you're considering whether there will be  
14 health effects to this power plant?

15 DR. ODOEMELAM: Well, that is -- we  
16 can't really make any -- you can't make any  
17 predictions. But, all that information is part of  
18 what makes -- uncertainty. As you can see, staff  
19 takes the PM10, PM2.5 very seriously, and also the  
20 Air District. And the ARB, as you know, is in the  
21 process of trying to make changes to the existing  
22 standards.

23 So it's a big uncertainty, and we're  
24 very concerned about it and aware of it.

25 MS. MURPHY: I just want to ask you sort

1 of for the record the same question I asked Mr.  
2 Loyer. Do you -- you then believe, or you've  
3 stated in your testimony, that the mitigation by  
4 the Air Quality Control Management District is  
5 sufficient to mitigate these effects that are  
6 real, and on what do you base that belief?

7 DR. ODOEMELAM: Well, if you remember  
8 from the testimony from Joe, the facility, itself,  
9 does not violate the standard, but it adds to it.  
10 And there are only so many ways that you can  
11 mitigate it.

12 One of them is this use of emission  
13 reduction credits which is a very rigorous program  
14 that the District has set up on a basin-wide  
15 basis. And then we really make sure that before  
16 we are convinced that the mitigation is adequate  
17 to offset the emitted pollutants, that it is  
18 demonstrable according to District rules, and also  
19 according to our own assessment.

20 So we are comfortable that the  
21 mitigation that is proposed with PM10 as a  
22 surrogate is adequate for this particular project.

23 MS. MURPHY: I don't want to be  
24 badgering you, but I think you've only stated  
25 conclusions. I'd like you to say on what you base

1 your conclusions that, in fact, the credit program  
2 is lowering pollution levels in the L.A. region.

3 DR. ODOEMELAM: Well, the Air District,  
4 as with the Bay Area District, all of them have  
5 these studies, many studies that have -- the  
6 programs, the progress made. They have monitoring  
7 stations. And each Air District will easily send  
8 to you studies that --

9 MS. MURPHY: And that will show us that  
10 it is the credit system that is lowering the air  
11 pollution?

12 DR. ODOEMELAM: That's one part of the  
13 program. But it --

14 MS. MURPHY: But it is your belief that  
15 the credit system is lowering the air pollution?

16 DR. ODOEMELAM: It's an important  
17 determinant --

18 MS. MURPHY: And lowering it enough to  
19 equal the sufficient mitigation for the pollutants  
20 that are emitted here?

21 DR. ODOEMELAM: We think that that's the  
22 best approach that's available at this point.

23 MS. MURPHY: Okay, thank you. No more  
24 questions.

25 HEARING OFFICER SHEAN: Mr. Nickelson,

1 do you have something? Any questions?

2 MR. NICKELSON: No, I'm fine.

3 HEARING OFFICER SHEAN: All right. Any  
4 other party? Pardon me? Any redirect?

5 MR. ABELSON: No.

6 HEARING OFFICER SHEAN: All right.

7 Thank you, Dr. Obed. You can get your plane now.

8 DR. ODOEMELAM: Yeah, right, thank you.

9 MS. MURPHY: Hurry, hurry.

10 (Off-the-record discussions.)

11 HEARING OFFICER SHEAN: Okay, shall we  
12 take a deep breath here, and then move on to  
13 visual?

14 (Pause.)

15 MR. PERKINS: Before we move to visual,  
16 it --

17 HEARING OFFICER SHEAN: Yes.

18 MR. PERKINS: -- it should be clear that  
19 those of us who are here are available for cross-  
20 examination.

21 HEARING OFFICER SHEAN: All right. Yes,  
22 that's quite correct. Thank you.

23 MR. ABELSON: That what? I'm sorry?

24 HEARING OFFICER SHEAN: We have admitted  
25 the testimony of Mr. Perkins, Ms. Murphy and Mr.

1 Nickelson, so if any other party would like to  
2 examine them, now would be the time to do that on  
3 their air quality/public health matter.

4 Anything?

5 MR. MCKINSEY: No.

6 HEARING OFFICER SHEAN: All right. Got  
7 off scot-free, there.

8 Okay, we have, at least on the schedule,  
9 the applicant's visual resource testimony which  
10 was in exhibit K to their direct testimony. And  
11 then the direct testimony of intervenor Murphy/  
12 Perkins and then some further cross-examination by  
13 Mr. Nickelson.

14 Do you want to -- is your exhibit K in?

15 MR. MCKINSEY: Yes. To begin with, our  
16 direct testimony was provided in appendix K, and  
17 it provides on the last page, page 33, six  
18 documents or sets of documents that we put into  
19 the record as our testimony in the area of visual  
20 resources.

21 They are the AFC, section 5.13; a  
22 certain number of data requests and supplemental  
23 data requests; the revised landscape plan, which  
24 it should be the landscape concept plan and there  
25 are two dates provided, the 11/05/01 and the

1 3/01/03, -- January 10th, boy, getting tired. And  
2 in addition, the visual enhancement proposal that  
3 we provided in the earlier part of 2002. And the  
4 project description amendment, which we provided  
5 in the midsummer, which kind of clarified the  
6 portions of the visual enhancement proposals as  
7 the parties had agreed.

8 So we submit those as the records that  
9 we'd like to have as testimony in this proceeding,  
10 in addition to the written testimony.

11 HEARING OFFICER SHEAN: Okay, is there  
12 objection?

13 MS. MURPHY: No objection.

14 HEARING OFFICER SHEAN: Then it's  
15 admitted.

16 MR. McKINSEY: I'd emphasize the gist of  
17 our position is that we are in accordance with the  
18 staff's conditions of certification visual-1  
19 through 9, as published by the staff on December  
20 31st. That would indicate that given those  
21 conditions of certification, we're satisfactory.

22 We have read in particular the rebuttal  
23 testimony of both of the parties that I think  
24 submitted testimony opposing what is, in essence,  
25 the visual-1 through 9, and some of the connecting

1 documents that connect to it.

2 And I'm trying to think of just the  
3 easiest way to try to make this happen. I would  
4 suggest that we hear the testimony of those two  
5 parties, and if they're agreeable to doing that,  
6 and it may be that these things are resolvable, or  
7 it may be that they're not, but I think I see some  
8 ideas just from having read their testimony,  
9 particularly their rebuttal testimony.

10 But at this time I would tender that as  
11 the witness we have available is Mr. Cabe, as the  
12 person who's familiar with our submittals and what  
13 we've committed to, but we don't have a visual  
14 resources impacts person available, but I don't  
15 think that those are the type of remaining issues  
16 that exist among the parties.

17 HEARING OFFICER SHEAN: All right.

18 MS. MURPHY: I'm sorry, what order are  
19 we doing?

20 HEARING OFFICER SHEAN: Well, if you'd  
21 like, why don't we go -- first of all, do we have  
22 the visual section on the FSA and your subsequent  
23 stuff is already in, is that true?

24 Probably not.

25 MR. ABELSON: Well, no, we haven't

1 introduced it, I mean not --

2 HEARING OFFICER SHEAN: But these are  
3 your visual people --

4 MR. ABELSON: But they're here.

5 HEARING OFFICER SHEAN: -- people here,  
6 right?

7 MR. ABELSON: Yeah. Would you like me  
8 to just go through that formality?

9 HEARING OFFICER SHEAN: Sure. Why don't  
10 we just do some preliminaries there, we get that  
11 in.

12 MR. ABELSON: Yes. Thank you, Officer  
13 Shean. In the visual resource area our two  
14 experts and staff representatives are Eric Knight  
15 and Bill Kanamoto, both of whom are here. Would  
16 you like to have them sworn?

17 HEARING OFFICER SHEAN: Let's have them  
18 sworn now, please.  
19 Whereupon,

20 ERIC KNIGHT and BILL KANAMOTO  
21 were called as witnesses herein, and after first  
22 having been duly sworn, were examined and  
23 testified as follows:

24 DIRECT EXAMINATION

25 BY MR. ABELSON:



1           Q     Just basic foundation questions.  Were  
2     the two of you the individuals who worked as a  
3     team to develop the staff's position in the El  
4     Segundo case in the area of visual resources?

5           MR. KNIGHT:  Yes.

6           MR. KANAMOTO:  Yes.

7           MR. ABELSON:  And have you reviewed the  
8     FSA, the final staff assessment, in that area?

9           MR. KNIGHT:  Yes.

10          MR. KANAMOTO:  Yes.

11          MR. ABELSON:  And have you participated  
12     in preparing and have your reviewed both the  
13     direct written testimony that was filed on January  
14     22nd and any response testimony that was filed on  
15     February 10th with regard to the issue of visual?

16          MR. KNIGHT:  Yes.

17          MR. KANAMOTO:  Yes.

18          MR. ABELSON:  And do those positions  
19     accurately reflect your views, or are there any  
20     changes you want to make to them?

21          MR. KNIGHT:  No, they're accurate.

22          MR. ABELSON:  And I think that we would  
23     just simply move those into the record at this  
24     point.  I know there were some interim conditions  
25     that were released between the FSA and the direct

1 written testimony on the 22nd of January, but I  
2 believe that staff has tried to capture the moving  
3 target, as it were, in what it wrote on the 22nd  
4 of January, and certainly in what it wrote on the  
5 10th of February.

6 So is that -- first of all, let me ask  
7 the witnesses if that's correct.

8 MR. KANAMOTO: Yes, that is.

9 MR. ABELSON: So I think that you would  
10 find our complete position, in effect, Officer  
11 Shean and Commissioner, by reviewing the FSA plus  
12 January 22nd and February 10th of this year.

13 HEARING OFFICER SHEAN: All right.  
14 Objection to admission?

15 MR. ABELSON: And in summary, we  
16 basically are in agreement with conditions 1  
17 through 9 as they now stand, and as we now  
18 understand them, as the recommended position. And  
19 we are under the impression and understanding that  
20 the applicant agrees with that, as well.

21 And assuming that nothing in this  
22 evening's proceedings change that understanding,  
23 which basically said that the applicant and the  
24 staff are in agreement on the visual issues.

25 HEARING OFFICER SHEAN: Okay, in absence

1 of objection, the staff testimony is admitted.

2 If you wish, we can either get your  
3 materials in, and then if you have some questions  
4 we can ask them. That way the record is  
5 essentially assembled with regard to the direct  
6 testimony on visual resources. And I would just  
7 recommend that we do that.

8 And what I will --

9 MS. MURPHY: I think all of our  
10 testimony has been submitted already all in one  
11 lump thing last time around. We didn't specify it  
12 was only in the --

13 HEARING OFFICER SHEAN: All right, it  
14 was probably not disaggregated, so at least the  
15 testimony that you had submitted and the rebuttal,  
16 as well --

17 MS. MURPHY: It's not much testimony.

18 HEARING OFFICER SHEAN: -- as the  
19 testimony of Mr. Nickelson. Right. Okay.

20 MR. NICKELSON: Yes, and Nickelson  
21 testimony with the visual is also with the air  
22 quality.

23 HEARING OFFICER SHEAN: All right.  
24 We'll proceed, then. If you have any questions of  
25 these witnesses, please go ahead.

1           MR. NICKELSON: Yes, I'd just like to  
2           make an observation here. I had requested using  
3           the applicant's landscape concept plan. I had  
4           mapped out a little bit of what I would like to  
5           see, being a resident, you know, what would look  
6           good to us, you know, at the south end near 45th  
7           Street. I live just up the street.

8           And Mr. McKinsey came back saying that,  
9           you know, that I was asking for something that  
10          wasn't there. I looked for a visual that Ms.  
11          Jester had submitted, you know, and then added to  
12          the Vis-2.

13          What was really nice about this was that  
14          your staff came back, they took my, or what I had  
15          requested and actually provided three pictures,  
16          which absolutely thrilled me to death. And it  
17          shows blocking up to the cutter tank, around the  
18          filling station, which would, you know, obscure  
19          most of the view into the tank farm after the  
20          tanks have been removed.

21          And then it also, their suggestion was  
22          to leave the corridors open, you know, so that  
23          they could provide view corridors for the people  
24          driving back and forth.

25          And I can't tell you how proud I was of

1 the two guys that did this. You know, it wasn't  
2 something that, I don't think that they had to do  
3 this, they could have just as easily walked away  
4 from this. They took on this additional  
5 responsibility. And that's what I'm saying where  
6 your staff has really come through.

7 This really provided a good idea to me,  
8 you know, who lives there. And I think, you know,  
9 to the other residents of what can be done. And  
10 it's not laying a heavy imposition, you know, on  
11 the applicant, either.

12 So, basically what has happened here I'm  
13 really pleased. And with everything that was  
14 stated, you know, that I know that the applicant's  
15 going to come back and provide visuals at a future  
16 date. This is when we get down to making that  
17 decision, they'll be providing the City of  
18 Manhattan Beach.

19 What was really nice, too, was in this  
20 plan they said that they had no objection, you  
21 know, to having some of the citizens involved in  
22 coming to the final, making the final renderings  
23 of what it's going to be.

24 So, again, I thank you. I'm truly  
25 satisfied with what has happened here with the

1 visual.

2 HEARING OFFICER SHEAN: Now, just so we  
3 understand the reference you're making to the  
4 materials provided by the staff. I'm holding here  
5 visual resources figures 2A, B and C. Is this  
6 what you're referring to?

7 MR. NICKELSON: Yes, sir, that's  
8 correct.

9 HEARING OFFICER SHEAN: And that it is  
10 the description largely in 2C showing the post-  
11 tank removal simulated view and differentiating  
12 between the views that are important to motorists  
13 and some agreed-to residents, which are south of  
14 the cutter tank, versus those which are north of  
15 the cutter tank. And the suggestion therein that  
16 there be greater screening of the area south of  
17 the tank and to the extent north of the tank  
18 there'd be a mixture of viewlines as well as some  
19 screening.

20 MR. NICKELSON: Yes, sir, that's  
21 correct.

22 HEARING OFFICER SHEAN: Okay.

23 MR. NICKELSON: In fact, what actually,  
24 you know, using the applicant's concept plan on  
25 the scale, it's only 200 feet from 45th Street to

1 the cutter tanks, so it's a relatively small  
2 stretch, you know, that we're -- if they would  
3 provide the trees that are shown, like I said, in  
4 2C, it really does a remarkable thing for anybody  
5 that, you know, that lives in the Manhattan Beach  
6 area.

7 MR. ABELSON: Officer Shean, just for  
8 clarity on the record I think you're referring to  
9 photographic attachments that are part of staff's  
10 direct written testimony filed on the 22nd of  
11 January, am I correct?

12 Is this in the rebuttal -- yeah, I want  
13 to be --

14 HEARING OFFICER SHEAN: Let me see, I  
15 believe it's the February 10. Let me double-check  
16 that, though.

17 MR. NICKELSON: It is the February 10th,  
18 yes.

19 MR. ABELSON: Yes. My apology; I stand  
20 corrected. Thank you.

21 MR. MCKINSEY: And apparently it's  
22 probably just completely that this didn't get  
23 attached to our copy, but we hadn't seen this till  
24 now. I don't think it's going to be a problem,  
25 but that's kind of why we were just pondering. I

1 think our paper copy just didn't have this  
2 attached to it.

3 Can I ask a question of the staff just  
4 so I know exactly --

5 HEARING OFFICER SHEAN: Sure.

6 MR. McKINSEY: The bottom picture, which  
7 is depicting the, as I understand it, it's showing  
8 a screen of low trees and tall shrubs along what  
9 would be the well, it's the southeast boundary,  
10 but the problem is the southeast boundary of the  
11 property does this, in other words I'm describing  
12 an extra corner in the corner. And so the  
13 southeast boundary has a south-facing edge; it has  
14 an east-facing edge; and then it continues on the  
15 south again.

16 So are those trees along the east-facing  
17 edge, the south-facing edge of the -- on the east  
18 side of that corner?

19 MR. KANAMOTO: They're shown as being on  
20 both. They're shown as being on the south portion  
21 of the boundary that abuts the service station.  
22 And on the east portion of the -- from that corner  
23 to the cutter tank.

24 PRESIDING MEMBER PERNELL: You need some  
25 assistance there?



1 MR. MCKINSEY: Thank you, that --

2 MR. REEDE: I got it open. It's this  
3 area right here; showing it right in through  
4 there.

5 MR. ABELSON: The record could reflect  
6 that you're pointing to the upper left-hand, if  
7 you're looking at the landscape concept plan, it  
8 would be the upper right and corner. If you're  
9 looking at --

10 MR. CABE: Or the southeast --

11 MR. MCKINSEY: Okay, this is important,  
12 I want to make sure they put them in the right  
13 place. The property line is that dark blue right-  
14 hand corner.

15 MR. REEDE: Correct.

16 MR. MCKINSEY: So anything -- no, not  
17 that.

18 MR. REEDE: Yeah, this property right  
19 here.

20 MR. MCKINSEY: So nothing south or east  
21 of that corner. That's actually the gas station  
22 probably.

23 MR. KANAMOTO: Right, we're cuing off  
24 of, in your direct testimony, number 16, the  
25 applicant's committed to adding additional trees

1 in the area above the tank farm, particularly  
2 around the Chevron gas station. So that's what  
3 this is depicting.

4 MS. CRIPE: Is there a height to the  
5 berm?

6 MR. McKINSEY: Here's a question I have  
7 because I want to make sure that it's being  
8 presented correctly. If you look at the landscape  
9 concept plan, the gas station property includes a  
10 slope going down away from.

11 So the property line for the property,  
12 if you understand what I'm asking, is below the  
13 level of the gas station. You can see the dark  
14 arrows indicating the slope.

15 So if you're standing on the edge of the  
16 gas station you're looking down to the fence of  
17 the property.

18 What I'm looking at what you're  
19 describing as is dense screen of low trees and  
20 tall shrubs, they're standing out like you may  
21 have placed them at the top edge of that property.  
22 So I'm asking, did you place them at the bottom or  
23 the top of that edge? Because if they're at the  
24 bottom, they may not be showing as much as you're  
25 rendering them, if they're shrubs and low trees.

1 MR. KANAMOTO: No, you're quite right,  
2 they're showing at the top of the slope.

3 MR. MCKINSEY: Okay, and I'm only  
4 tendering this because that means that it's not,  
5 what you're describing there of low shrubs, tall  
6 trees is not going to produce the same effect that  
7 you're depicting which is what they're  
8 anticipating.

9 MR. KANAMOTO: So you're saying that  
10 they're showing not on the property line but on  
11 the Chevron property?

12 MR. MCKINSEY: Correct.

13 MR. NICKELSON: It wouldn't be on the  
14 Chevron property, though, would it, John? Isn't  
15 everything --

16 MR. CABE: The Chevron service station  
17 property.

18 MR. NICKELSON: Let's see, the  
19 fenceline, anything beyond the fenceline would be  
20 your property.

21 MR. CABE: Anything west of it.

22 MR. NICKELSON: You got the station here  
23 and the parking and the air pump and that; and  
24 then there's a fence that runs along. And on the  
25 other side of that fence is your property.

1           PRESIDING MEMBER PERNELL: John, perhaps  
2           you or Ron can go over and just point to it so  
3           that it makes sure that -- sounds like we need to  
4           be sure exactly what they're talking about.

5           MR. MCKINSEY: Well, in fact, --

6           (Pause.)

7           MR. MCKINSEY: I believe that they've  
8           depicted the shrubs right here on the edge of the  
9           gas station's level property. But this whole  
10          section of property is theirs. And this is our  
11          property line, and it is downslope. And I think  
12          there are two fences. There's a fence that the  
13          gas station put in to keep people off the slope.  
14          And then there's the fence of our property line  
15          here.

16          And so if you're describing low shrubs  
17          and low trees, they really would be down here, and  
18          I don't think they're going to be visible from  
19          this vantage point you took from the southeast on  
20          this slope. They would have to be tall trees to  
21          be visible --

22          MR. KANAMOTO: Well, the reason we chose  
23          the low trees and tall shrubs --

24          HEARING OFFICER SHEAN: Okay, why don't  
25          everybody sit down now that we have the

1 orientation and apparently enough information to  
2 suggest that the photosimulation that's showing  
3 the trees that essentially are going in a westerly  
4 direction from along the southern edge of the  
5 applicant's property, to the extent that they're  
6 shown on the two angles adjacent to the gas  
7 station, may not be the most accurate  
8 representation of similar shrubs in different  
9 places. Is that correct?

10 MR. KNIGHT: Yeah, and the reason we  
11 depicted the low shrubs there is there is a  
12 concern about blocking out newly created  
13 whitewater views. So, I don't think we would have  
14 called for low trees and tall shrubs if they had  
15 to be farther down the bank. It would be taller  
16 trees to achieve the same level of screening.

17 MS. MURPHY: Who are the visual  
18 receptors that you're -- the views for?

19 MR. KNIGHT: Nickelson.

20 MS. MURPHY: Well, you show low shrubs  
21 at the gas station, because it gets --

22 MR. KNIGHT: No, no, no, no, the view  
23 that's shown is on 45th Street east of Highland.

24 MR. NICKELSON: Right.

25 MR. KNIGHT: So the views from these

1 residences we don't want to block off the newly  
2 created views of whitewater. So that's why we  
3 were trying to restrict the height.

4 Now, if we have the trees in the wrong  
5 place, we need to, you know, move them down the  
6 slope there, they're going to be taller trees to  
7 achieve the same effect.

8 MR. NICKELSON: Yes.

9 MS. MURPHY: I wonder if it's possible  
10 for the applicant to ask the gas station if they'd  
11 allow them to garden on their property. Put the  
12 trees in the flat space there, because no one's  
13 using it. Or bushes.

14 MR. NICKELSON: -- reflect --

15 MS. MURPHY: Yeah, but, you know, you  
16 have to do it, but it would make it -- it would  
17 visually make, enhance your property.

18 MR. CABE: I think it would be complete  
19 conjecture. We don't have that property owner in  
20 for the proceeding, and I certainly wouldn't want  
21 to have a condition that would obligate us to do  
22 that when we don't have anybody in --

23 HEARING OFFICER SHEAN: Okay, --

24 MR. ABELSON: I also think, Officer  
25 Shean, if I may, and I'd like Mr. Kanamoto and Mr.

1 Knight to answer this if they could, basically the  
2 testimony that staff has put forward is attempting  
3 to address certain conditions and provide a  
4 facsimile or approximation of how certain issues  
5 that are described in those conditions would be  
6 addressed.

7 The pictures are not intended to  
8 represent the final outcome, if I understand it  
9 correctly, but simply to provide to the citizens  
10 who are concerned a sense of how things may end  
11 up.

12 Now, we've heard this evening -- first  
13 of all, let me just ask both the witnesses, is  
14 that correct, what I just stated?

15 MR. KANAMOTO: Yeah, that's exactly  
16 right. If we could expand on that?

17 MR. ABELSON: Sure.

18 MR. KANAMOTO: This is a perfect example  
19 of a number of detailed level issues related to  
20 landscape plans that have not been resolved. And  
21 we were trying to describe a process by which  
22 these things can be resolved, you know, the best  
23 feasible solution.

24 MR. ABELSON: Right.

25 MR. KANAMOTO: And we don't anticipate

1       that these questions will be able to be resolved  
2       in prior to certification. I guess the point that  
3       we want to make is that we're fairly confident,  
4       we're very confident that they can be resolved to  
5       a level of satisfaction prior to certification.  
6       And that the details will still need to be  
7       resolved later.

8               This is a perfect example. If this  
9       treatment here is not feasible, then a substitute  
10      has to be developed. And that's what the role of  
11      the Committee would be, is to develop an  
12      alternative solution, I suppose, because of that.

13             MR. ABELSON: Right, and let me also so  
14      I help the Committee understand the process,  
15      you're basically, you've set forth the sort of  
16      standards that we're talking about, balancing and  
17      screening on the one hand, and viewsheds on the  
18      other, which is something that the Coastal  
19      Commission has required.

20             And then you also offer, which I believe  
21      I heard the citizens indicate, was the positive  
22      thing from their perspective, a process, a very  
23      public process by which the details at the end  
24      would be worked out post-certification with input  
25      from all the affected parties, is that correct?



1 MR. KANAMOTO: That's correct.

2 MR. ABELSON: All right.

3 MR. McKINSEY: I'd like to add into  
4 that, though. We had committed at the last  
5 workshop to planting trees around that property  
6 edge for screening purposes, that we didn't have a  
7 problem with that. And we certainly don't have a  
8 problem with putting taller trees along that edge.

9 There may be some points where there's a  
10 big slope right there where they may not create  
11 much of a screening at all. There might also be  
12 places where if you put tall trees it would be a  
13 problem, because the property drops away from the  
14 road. However, we don't have a problem with that.

15 In response to the idea of using the  
16 Chevron's property, the problem would be this. Is  
17 not only are they not here, but the Energy  
18 Commission doesn't have any control over them.  
19 So, we could go to them and we could say, we want  
20 to sign a contract, so you're going to be  
21 obligated to maintain trees there for the next 30  
22 years whether you like it or not. And, you know,  
23 we can sue you if you breach the contract.

24 And you can see how they'd respond to  
25 that. I mean it would be one thing for them to

1 say, sure, plant some trees. But for the Energy  
2 Commission to be able to control and insure that  
3 those trees would be there, there's no authority  
4 that the Energy Commission has over that property  
5 to accomplish that.

6 And so it would be really hard to draw  
7 that property and those property owners into this  
8 proceeding in a way in which the Energy Commission  
9 could say, yes, now we know there'll be trees  
10 there for the next 30 years.

11 MR. NICKELSON: Can I interject  
12 something, too. I think it would be much more  
13 difficult to maintain trees if they were on the  
14 Chevron property than they were on your property  
15 on the other side of the fence, because of the  
16 kids that come in there and -- into the station  
17 and then just, where you see a tree, you know,  
18 children want to climb it.

19 I just think you'd have a real problem  
20 maintaining it. And especially, you know, too, at  
21 night. Cars coming in there. I think people  
22 would be -- that's an area where people can be  
23 malicious and do things, you know, and nobody is  
24 there, you know, to control that.

25 I would rather see it on your property.

1           MR. MCKINSEY: And we don't have a  
2           problem with that. And I would agree with Mr.  
3           Abelson; we should make it clear on the record  
4           that we've agreed to plant trees around that  
5           perimeter. The makeup of the height and the  
6           density of those trees is something that would fit  
7           within this, I think the workout process that  
8           follows certification.

9           MR. NICKELSON: That's wonderful.

10          HEARING OFFICER SHEAN: Okay.

11          PRESIDING MEMBER PERNELL: Sounds like  
12          it's okay with everybody.

13          HEARING OFFICER SHEAN: Sounds like  
14          essentially that's -- is that -- that's okay with  
15          Mr. Nickelson.

16          MR. NICKELSON: Oh, listen, I don't  
17          know, I think in hearing both sides in agreement,  
18          and I'm definitely in agreement. I think it's  
19          great. I really appreciate that.

20          HEARING OFFICER SHEAN: Anything more  
21          from Murphy/Perkins on this?

22          MS. MURPHY: Yes. Wait, this is  
23          actually the wrong one. I think this tomorrow's  
24          issue, land use?

25          MR. REEDE: Yes, that's tomorrow.

1 HEARING OFFICER SHEAN: Um-hum.

2 MR. REEDE: That's tomorrow.

3 MS. MURPHY: Well, I just wanted you to  
4 look at the visual effect of my sandy beach.  
5 That's what you see in front of my sandy beach.  
6 It's naturally totally sand. This is what it  
7 looks like in the winter. So, -- tomorrow, but I  
8 think it's visualized -- okay.

9 What I want to show you, this is  
10 actually before you did come and trim the palm  
11 trees after we complained about rats in the --  
12 oh, I'm sorry --

13 (Parties speaking simultaneously.)

14 MS. MURPHY: I'll sit over here, I'll  
15 stay here. I don't need to point.

16 But, with the exception of the trimmed  
17 palm trees, those bottom-hanging things where rats  
18 and possums live, the landscaping underneath looks  
19 about the same right now.

20 Now, I was assured on many occasions, at  
21 first they didn't own the property, but that they  
22 were going to take care of it and I should trust  
23 them and they would keep it nice -- this is an old  
24 picture. I should have brought a new one, too, to  
25 show you it's much the same.

1           But they have not. And there's been  
2       every reason to make the residents happy during  
3       this period so that we come in and like Nick, say  
4       how wonderful you were. And in some ways you're  
5       wonderful people, but as far as trusting you to  
6       continue gardening, I don't think -- I have not  
7       been shown that I can trust you to continue  
8       gardening, because during this period you have  
9       every reason to do it, you haven't been doing it.

10           There's weeds growing; there's lots of  
11       trash blowing; it's not gardened.

12           Now, Chevron, which I've said this many  
13       times over the last three years, has 12 full-time  
14       gardeners. It's a bigger place. And they make  
15       their neighbors happy with their gardening, at  
16       least, because they change the flowers; they have  
17       things blooming; they take care of it.

18           I've asked over and over that the  
19       Commission require that some condition that they  
20       will continue to garden, and I guess I'm mostly  
21       told we've never done it before so we can't do it.  
22       But I don't know why not.

23           And we're in a little bit of a different  
24       situation because we are 20 feet away. Elsie  
25       Cripe and I go out there with our bags and pick up

1 the trash. We garden for them to some extent.  
2 And I would like the Commission to ask that they  
3 be required to have at least one full-time -- this  
4 is a long corridor around here, and there'll be  
5 more down when the create the new garden area,  
6 the bike path or -- so, that's a thing I've been  
7 asking for a long time.

8 I wish you would consider that request  
9 that they be required to have a gardener. Not  
10 necessarily a staff gardener; they could be a  
11 contractor or whatever, but somebody that will be  
12 responsible for making sure that the place is  
13 continually gardened.

14 And then I also just want to add, from  
15 my point of view, and I guess you've got other  
16 people's point of view, and it's probably too  
17 late, I don't understand the view corridors at  
18 all. I think maybe just screening is the better  
19 thing.

20 There's miles of unobstructed view of  
21 the ocean and the corridors are tiny little  
22 things. There's nobody living there; very few  
23 people walking there. It's mostly cars whizzing  
24 by. And a total green barrier.

25 And applicant early on said, oh, we

1 can't plant there, it's going to be too difficult  
2 because it's too narrow. And I'm wondering if  
3 their claims of difficulty are playing into the  
4 view corridor thing to keep them from doing what  
5 would make it a prettier place, which is more  
6 greenery, shielding rather than these view  
7 corridors that mean they don't have to plant some  
8 places and actually are going to mean a view of  
9 the power plant. Because as you move by them  
10 that's what you see. And the only view receptors  
11 are moving by them.

12 That's all.

13 HEARING OFFICER SHEAN: Okay. I have  
14 two questions of the staff. Do I recall that  
15 there is a condition among the visual conditions  
16 that requires the planting and maintenance of the  
17 planting that the applicant would be required to  
18 do?

19 MR. KANAMOTO: That's correct. I mean  
20 basically the difference in the way we  
21 characterized it was rather than specify how they  
22 should do it, we've just specified the performance  
23 standards, so to speak.

24 So there's several conditions that  
25 require good maintenance. And in addition there's

1 a method for, you know, public comment to be made  
2 that goes into the annual compliance report; it  
3 would be noted in the report on landscape  
4 maintenance.

5 So we feel like there's several  
6 mechanisms for complaints to be made, and several  
7 requirements for good maintenance of landscape.  
8 The only thing that we haven't specified is how  
9 that should be done.

10 HEARING OFFICER SHEAN: And do the  
11 conditions create a public process wherein the  
12 applicant, the Commission Staff, through its  
13 compliance project manager, the Cities of El  
14 Segundo and the City of Manhattan Beach, as well  
15 as the affected public can have input on the  
16 ultimate landscaping plan?

17 MR. KNIGHT: Yeah, that was in our  
18 rebuttal testimony, we described a process, what  
19 we called the landscape committee. And so it's  
20 not now a part of the condition, condition Vis-2,  
21 but we were proposing it. And it's described in  
22 our rebuttal. And we suggested language that  
23 could be added to the condition.

24 HEARING OFFICER SHEAN: So is that not  
25 in yet?



1 MR. REEDE: Prior to that. It's in  
2 the --

3 MR. KNIGHT: It's in the --

4 MR. ABELSON: It's in our response  
5 testimony as proposed additional language. I've  
6 heard no objection so far from the applicant, so  
7 assuming that that's acceptable, obviously Mr.  
8 Nickelson likes it.

9 MR. KNIGHT: I believe it's on page 4  
10 and 5 --

11 MR. REEDE: It's actually on page 56, my  
12 fingers are messing up -- okay, 58, page 58 --

13 HEARING OFFICER SHEAN: Page 58 at the  
14 bottom, states: add after second paragraph of Vis-  
15 2, is that it?

16 MR. KNIGHT: Yes.

17 HEARING OFFICER SHEAN: Do you have a  
18 reaction to that?

19 MR. McKINSEY: Yes. Not in a negative,  
20 almost in an improving way, and that is the  
21 placing of the Coastal Commission in an advisory  
22 role, I don't think makes sense for this detail  
23 level -- well, I mean it may and it may not. I  
24 mean part of the problem is as we've seen in the  
25 last two years the Coastal Commission doesn't have

1 the staff ability to really come down and attend.  
2 And they made it here to the evidentiary hearings.  
3 They made it to, I think, a hearing or a workshop  
4 two years ago, and in between it's been telephone.

5 And the way this implies it might imply  
6 if you don't have the Coastal Commission  
7 available, then you don't have a committee. And  
8 that might be a problem.

9 And then my second point would be to --  
10 well, we haven't raised it until now, the presence  
11 of local coastal program, and since the City of El  
12 Segundo isn't here to object, I can't imagine  
13 they'll have any reason to complain that they  
14 already have a local coastal plan that should  
15 provide for it anyway, but -- so maybe if you  
16 added a sentence that indicates that you don't  
17 have to have the advisory members there to have  
18 your committee --

19 MR. ABELSON: And if it's just a  
20 question of logistics, I think that's fine, on  
21 behalf of staff. But I will say that if the  
22 implication is that somehow the Coastal Commission  
23 doesn't get a review and comment, that would not  
24 be consistent with their own recommendation.

25 MR. MCKINSEY: No, in fact, the issue I

1 have is this. This isn't a review of something  
2 and comment, it's a committee that's supposed to  
3 do all the work and develop things. And that  
4 means they've got to be able to get together.

5 And so that's my concern, is that.

6 MS. MURPHY: I have one concern, too.  
7 The committee's composed of, I think, two  
8 Manhattan Beach residents and two El Segundo  
9 residents, is that right?

10 MR. KANAMOTO: It's two members from the  
11 City of -- the two Cities, including -- that could  
12 include a committee member.

13 MS. MURPHY: Oh, okay, so maybe only one  
14 committee -- if a community member is -- El  
15 Segundo doesn't care, I mean they're not here  
16 because there's no one that lives within view of  
17 the plant; there's no one that would see the  
18 plantings. I mean they don't even drive past it  
19 because they go the other direction.

20 I mean sometimes they'll visit Manhattan  
21 Beach, but rarely. So I'm just saying, if it's  
22 community members, you might have trouble finding  
23 two community members that would care. I think  
24 they should certainly have some input, but you  
25 might -- it might sound unfair, because it is in

1 El Segundo, but as far as planting, as far as  
2 visual receptors, it's Manhattan Beach that cares.

3 MR. KNIGHT: It reads, you know, two  
4 members from the City of El Segundo, two members  
5 from the City of Manhattan Beach. I didn't want  
6 to get too prescriptive as to who those members  
7 would be, but I kind of envisioned, you know, just  
8 how these workshops have gone. And it would  
9 probably be somebody like Paul Garry and maybe  
10 another planner, because I don't think there's any  
11 community residents --

12 MS. MURPHY: That would care, that's  
13 right.

14 MR. KNIGHT: -- care.

15 MS. MURPHY: But the residents here, we  
16 care, and --

17 MR. KNIGHT: But I would imagine --

18 MS. MURPHY: -- there's no space for us.

19 MR. KNIGHT: -- somebody like Laurie  
20 Jester and maybe, you know, yourself or somebody  
21 else.

22 MR. PERKINS: Yeah, Ms. Jester's real --

23 MS. MURPHY: So we would --

24 MR. KNIGHT: I didn't want the group to  
25 be too large and unwieldy. And we used a process

1       like this, it was on the Los Esteros project, it  
2       was very similar, where it was two members from  
3       the City of Milpitas and two members from the City  
4       of San Jose, and then the applicant Calpine  
5       C\*Power had two representatives on the committee,  
6       as well.

7               And I participated in the workshops for  
8       the committee meetings, more in kind of an  
9       advisory role, and just making sure they were --  
10      everything they were doing was not going to cause  
11      the project to be out of compliance with some  
12      other condition or other visual conditions, other  
13      conditions and other technical areas. And trying  
14      to make sure they stayed focused on what, you  
15      know, they had to be doing. And didn't go too far  
16      astray.

17              HEARING OFFICER SHEAN: So in the Los  
18      Esteros --

19              MR. KNIGHT: Los Esteros, yeah.

20              HEARING OFFICER SHEAN: -- case you have  
21      some on-the-ground experience with this post-  
22      certification?

23              MR. KNIGHT: Um-hum, yes.

24              HEARING OFFICER SHEAN: Okay.

25              MR. KNIGHT: It worked well.

1           PRESIDING MEMBER PERNELL: You also have  
2 the Coastal Commission in an advisory role, as  
3 well?

4           MR. KNIGHT: Yeah, and I kind of -- I  
5 know they have constraints in their travel, and I  
6 didn't necessarily mean that they had to be there.  
7 I wasn't in attendance at every meeting with Los  
8 Esteros, but I tried to attend most of them. And  
9 I thought that maybe the Coastal Commission, they  
10 couldn't physically be there, maybe they could  
11 review submittals or drafts and provide comments  
12 in a timely manner.

13           And that was another thing, there needs  
14 to be a schedule that's developed so this  
15 doesn't -- the process get the applicant off  
16 track --

17           MR. ABELSON: Speaking of schedule, if  
18 we don't wrap up this section these folks are  
19 going to miss the last plane out tonight.

20           HEARING OFFICER SHEAN: Okay, well --

21           PRESIDING MEMBER PERNELL: Well, I have  
22 one other question, though. So to address the  
23 applicant's concern about whether or not the  
24 Coastal Commission has staff and availability, by  
25 them being in an advisory role it's not going to

1 stop the Committee from doing its job if for some  
2 reason they can't make it?

3 MR. KNIGHT: Correct.

4 HEARING OFFICER SHEAN: Are there  
5 advisory participants other than the Energy  
6 Commission and the Los Esteros Committee?

7 MR. KNIGHT: No.

8 HEARING OFFICER SHEAN: Okay. All  
9 right, --

10 MR. NICKELSON: Could I just ask one  
11 question?

12 MR. KNIGHT: Oh, --

13 MR. NICKELSON: The height of the berm,  
14 is that depicted on your concept plan?

15 MR. McKINSEY: The what?

16 MR. NICKELSON: The height of the berm,  
17 has that changed? Or has that been designated on  
18 the concept plan? Does that show the height of  
19 the berm?

20 MR. McKINSEY: Yes.

21 MR. NICKELSON: Thank you.

22 MS. MURPHY: I actually have one more  
23 question, --

24 HEARING OFFICER SHEAN: All right, one  
25 question.

1 MS. MURPHY: -- too, sorry.

2 HEARING OFFICER SHEAN: Go ahead.

3 MS. MURPHY: The berm and that area is  
4 going to be built before, prior to construction in  
5 order to help prevent the dust and other problems  
6 of construction.

7 And the words that are currently there  
8 say something about any area that doesn't  
9 interfere with construction. I'm wondering what  
10 that area is?

11 For example, would that boundary  
12 screening interfere with construction?

13 MR. McKINSEY: It's anticipated to be  
14 the perimeter areas probably --

15 MS. MURPHY: All the perimeter,  
16 depending on what you might need to --

17 MR. McKINSEY: Right.

18 MS. MURPHY: Okay, that's all I wanted  
19 to know.

20 MR. McKINSEY: I think there's another  
21 comment in your testimony that I'm just going to  
22 do this so we can get through it quickly.

23 You had indicated that the landscape  
24 concept plans, description, what's being planted  
25 on the berm doesn't match the visual enhancement



1       proposal.

2               And, being as specific as I can, here's  
3       what we would say.  Once again, I don't think we  
4       have an objection to changing what we proposed,  
5       though other parties may, but the visual  
6       enhancement proposal did not place any trees on  
7       the very top of the berm.

8               And I've got to stop right here to show  
9       you that.  It anticipated some trees right on the  
10      edges, and then working, and then scattered around  
11      down, but it wasn't actually like a wall of trees  
12      along the top edge of the berm.

13              And the trees the way they're depicted  
14      on here are exactly the way they were depicted on  
15      the drawing in the visual enhancement proposal, in  
16      fact all they did was superimpose it over that.  
17      And I just double-checked them again.

18              So, the issue, I would say that now  
19      there is a note that we added to the landscape  
20      concept plan on January 10th that describes the  
21      location and the material that's being put on the  
22      berm.  It was intended to just be some short  
23      descriptive phrase.

24              And it indicates, it doesn't say the  
25      top, it indicates -- where it says the top of the

1       berm, --

2               MR. CABE:   Flat area.

3               MR. MCKINSEY:  -- the flat area of the  
4       berm which is the top edge.  And your comment and  
5       this is in yours, Mr. Perkins, was that the upper  
6       area of the berm would be planting.

7               But the actual landscape concept plan is  
8       only saying these low-lying shrubs and ground  
9       cover are along the top of the berm.  And the  
10      actual drawing shows trees located right up on the  
11      edges.

12              So I'd like to hear if that satisfies.  
13      If you want to look at these, or if what you're  
14      really advocating for is you want trees along the  
15      top of the berm, I think the staff is going to be  
16      particularly interested in that.

17              MR. PERKINS:  Yeah, they would, and if  
18      you're saying, and there's a firm commitment here  
19      that the plantings will match the depiction in the  
20      renderings that you gave us, then that means I  
21      misread the drawings, which won't be the first  
22      time.  But that's the commitment, cool.  I don't  
23      have any problem with that.

24              Ms. Cripe has asked, and I just forgot,  
25      can you guys, since it is on the landscape concept

1 plan, could you state how high that berm is above  
2 street level?

3 MS. MURPHY: It varies.

4 MR. PERKINS: It runs down the street  
5 and I'd appreciate somebody relating it to street  
6 level.

7 MR. McKINSEY: First answer is it  
8 varies. It isn't parallel to the slope of the  
9 street. So, at the very east edge of the property  
10 it's actually -- the berm ends. And so it's  
11 actually the berm is below. And as it works its  
12 way down, it hits a high point and I think it's  
13 right about perpendicular to your home.

14 (Pause.)

15 MR. McKINSEY: It's about 11 feet  
16 probably at the beginning edge of your property  
17 line, the eastern edge of your property line. And  
18 it hits its peak at probably about 14. And I  
19 think these numbers were in the submittal. I'm  
20 just reading it based on the contour lines on the  
21 drawing.

22 MR. PERKINS: So, opposite the Cripe  
23 house, probably more like eight or ten, is that  
24 what we're talking about?

25 MR. McKINSEY: Yeah, probably about ten.

1 MR. PERKINS: Thanks.

2 PRESIDING MEMBER PERNELL: All right, we  
3 have any other questions on visual? Seeing none,  
4 hearing none, --

5 MR. REEDE: James Buntin, are you on the  
6 line? He was supposed to call in at 7:00 on noise  
7 issues.

8 PRESIDING MEMBER PERNELL: All right, is  
9 there's nothing else on visual -- everybody got  
10 all their documents in?

11 MR. ABELSON: I think all the document,  
12 yes, we've certainly identified the pieces for  
13 ourselves, and I assume Officer Shean was taking  
14 note of that at the time, so that's the basis for  
15 our information.

16 PRESIDING MEMBER PERNELL: All right,  
17 then the section on visual is closed.

18 We will now go to noise. I hope you  
19 guys make your flight. If not, Mr. Reede will  
20 accommodate you.

21 MR. REEDE: Oh, no, no, no, no, no, no,  
22 no, no.

23 (Laughter.)

24 MR. REEDE: My staff has never missed a  
25 flight in two years.

1 (Parties speaking simultaneously.)

2 PRESIDING MEMBER PERNELL: All right, we  
3 need to get ready for noise.

4 (Pause.)

5 PRESIDING MEMBER PERNELL: Can we go off  
6 the record.

7 (Off the record.)

8 HEARING OFFICER SHEAN: Having concluded  
9 visual, we're now showing on the schedule noise  
10 impacts. And I think this was put in here as a  
11 contingency at the time of the prehearing  
12 conference, that it had the potential to be an  
13 issue.

14 And we were going to have the applicant  
15 offer up its direct written testimony. It's  
16 fairly obvious from reading the appendix A, we did  
17 not have a specific request for cross-examination  
18 by any of the parties. But if there are parties  
19 that want to make a comment, and I think the  
20 reason for this is the Committee understood at the  
21 time of the prehearing conference that the parties  
22 were reasonably satisfied with the noise  
23 conditions that have been agreed to as a result of  
24 the staff workshops.

25 So, with that, why don't we have the

1 applicant at least put its appendix G in, and  
2 we'll go from there.

3 MR. MCKINSEY: Our appendix G of our  
4 testimony provides our written testimony, and it  
5 also designates documents, page 26, which we would  
6 tender in the record.

7 There's a declaration of Mr. Cabe as to  
8 the accuracy and completeness of those documents  
9 and the testimony.

10 HEARING OFFICER SHEAN: Okay, is there  
11 objection to admission of appendix K of the  
12 applicant's direct testimony? Hearing none, it's  
13 admitted.

14 Now we'll just poll anybody who's here  
15 if --

16 MR. MCKINSEY: It's appendix G.

17 HEARING OFFICER SHEAN: I beg your  
18 pardon, appendix G.

19 MR. ABELSON: I think we need to get  
20 ours in, as well.

21 HEARING OFFICER SHEAN: All right, why  
22 don't we do that.

23 MR. ABELSON: Yes, I think the staff has  
24 worked on this issue quite diligently. I hope the  
25 citizens feel the same way from their perspective

1 over the several years that this project has gone  
2 on.

3 We have reflected a position both in the  
4 FSA that perhaps it's evolved a tad, I'm not sure,  
5 since then. But the last official statements from  
6 the staff would be contained in our direct written  
7 testimony.

8 So at this juncture it is my  
9 understanding and belief that there is no conflict  
10 between the applicant and staff on the noise  
11 issue. And to the best of my knowledge, I don't  
12 think there's any outstanding issues with the  
13 intervenors, either.

14 MS. CRIPE: What about the telephone  
15 number that we could reach someone? Was that  
16 included?

17 HEARING OFFICER SHEAN: Can you hear?  
18 All right, we're not hearing you, so, Ms. Cripe,  
19 if you need to, why don't you come up here to the  
20 microphones that are right there in front of you  
21 there.

22 MS. CRIPE: Was it ever concluded --

23 HEARING OFFICER SHEAN: Would you please  
24 state your name for the record, since you have not  
25 made a prior appearance?

1 MS. CRIPE: Oh, I'm Elsie Cripe. I'm an  
2 Intervenor.

3 HEARING OFFICER SHEAN: Yes.

4 MS. CRIPE: A quiet one.

5 HEARING OFFICER SHEAN: And your name,  
6 please?

7 MS. CRIPE: Elsie Cripe.

8 HEARING OFFICER SHEAN: Okay.

9 MS. CRIPE: And it seemed to me there  
10 was some issue about during the building of the  
11 property that there would be noise past a time, I  
12 know the City takes care of that, but we thought  
13 there could be, at one time, I don't know if there  
14 still -- I haven't talked to the rest of the  
15 intervenors, was that concluded at all?

16 MR. ABELSON: I think I'd ask Mr.  
17 McKinsey, who's been tracking this more closely,  
18 I'm sure, than I have, what the final outcome on  
19 that was.

20 MR. MCKINSEY: Noise-2 requires that  
21 we -- first, noise-1 requires that we send out a  
22 notice to all residents within a half a mile of  
23 the property about the commencement of project  
24 construction and inform them of the telephone  
25 number.



1           Noise-2 requires that we not only have a  
2           person designated as the complaint receiver, but  
3           there has to be a person 24 hours a day who has to  
4           have a pager or a cell phone so that they can  
5           immediately get a noise complaint. And it has the  
6           process for handling the noise complaints in it.

7           MS. CRIPE: Will you have someone  
8           onsite?

9           MR. MCKINSEY: Let me look exactly what  
10          the wording is. The project owner shall attempt  
11          to contact the persons -- that's not the one I  
12          want.

13          The one I'm looking for, the phone,  
14          itself, has to be available 24 hours; the noise  
15          monitoring officer has to carry at all times the  
16          portable pager or cell phone. And there has to be  
17          a noise monitoring officer for each construction  
18          shift, and for the daytime shift after it's in  
19          service.

20          So it doesn't specify they have to be  
21          onsite. And since there's no construction between  
22          a lot of hours in the evening hours, it may be  
23          that that noise control officer is simply -- it  
24          may be somebody on the plant, anyway, the plant  
25          operator. But it's quite possible it's just

1       somebody in the vicinity of the property.

2               MS. CRIPE:  Is there going to be a  
3       project manager there at all times?  Or just --

4               MR. McKINSEY:  Whenever there's  
5       construction there will most certainly be a  
6       project manager there.

7               MS. CRIPE:  All right.  And will he be  
8       available?

9               MR. McKINSEY:  Well, the person that's  
10       set up to initially handle the complaint is the  
11       person who's designated as the noise complaint  
12       officer.

13              MS. CRIPE:  Thank you.

14              HEARING OFFICER SHEAN:  Okay, let's get  
15       back to your admitting the staff testimony, which  
16       has not yet been done.  Is there objection to  
17       admission of the staff's testimony on noise in its  
18       FSA and the direct testimony?

19              Hearing none, it's admitted.

20              Are there any other questions or  
21       comments that the members of the audience wish to  
22       make with regard to the noise issue?  Going once,  
23       going twice -- all right.  Then we'll conclude the  
24       noise issue.

25              On our calendar we then have any time

1 available for public comments. We had scheduled  
2 this into the evening to assure that there was  
3 that opportunity for residents who work and could  
4 not otherwise attend our daytime sessions. As  
5 circumstances showed, we needed the time anyway.

6 So, if there's a member of the audience  
7 who would like to speak, raise your hand or come  
8 forward.

9 And seeing that there's no one  
10 requesting to do so, we will conclude today's  
11 proceedings -- all right, let me just indicate on  
12 the calendar we're showing a start tomorrow at  
13 9:30. Since that may -- we'll probably all enjoy  
14 a little bit more sleep, but we might be able to  
15 assure that we can conclude things, while I'm  
16 confident we could anyway, we could begin the  
17 uncontested matters at 9:00.

18 And then reserve the two substantive  
19 topics, land use and socioeconomics, to begin no  
20 earlier than 9:30, which is the scheduled start  
21 time. Is that a problem?

22 All right, from the Public Adviser's  
23 point of view, apparently that does not pose a  
24 problem. Are any of the parties who are present  
25 object to doing it that way?

1 MS. MURPHY: I like to sleep, but I'm  
2 wondering, is there any reason to believe it's  
3 going to take a long time tomorrow?

4 HEARING OFFICER SHEAN: No, there really  
5 isn't.

6 MS. MURPHY: So we need an extra --

7 PRESIDING MEMBER PERNELL: We didn't  
8 think we'd be here this late, so --

9 MS. MURPHY: No, we're here -- well,  
10 we're 14 minutes past the time we were supposed to  
11 leave, and we're done.

12 MR. McKINSEY: You know, I'll ask a  
13 pertinent question, only item on there that could  
14 be vague is your cross-examination of staff's  
15 witness on socioeconomics.

16 MS. MURPHY: That shouldn't take very  
17 long.

18 MR. McKINSEY: The other ones look  
19 pretty -- the other vague issue is the City of El  
20 Segundo on public land use --

21 MS. MURPHY: Yeah, we don't know what --

22 MR. McKINSEY: -- and they haven't been  
23 here, so --

24 MS. MURPHY: They're not here, so we  
25 don't know how long that would take.

1 MR. REEDE: They will be in attendance.  
2 Their attorney will be in attendance tomorrow  
3 morning. I did receive that email on Friday, even  
4 though Mr. Garry is on vacation all of this week.

5 MS. MENDONCA: Mr. Shean, Roberta  
6 Mendonca, the Public Adviser.

7 HEARING OFFICER SHEAN: Yes.

8 MS. MENDONCA: I have no problem with  
9 you taking your uncontested matters earlier. I  
10 would suggest in the unlikely event we did have  
11 public that would want to comment, that that part  
12 of the record not be closed until you conclude the  
13 other part of the --

14 HEARING OFFICER SHEAN: Absolutely.  
15 Since we've scheduled in there public comment,  
16 that would be entirely appropriate and the record  
17 would not have closed till that point.

18 So why don't we do that. We will  
19 assemble at 9:00, and go through those uncontested  
20 matters, and any other housekeeping details that  
21 we have to make sure our record up to that point  
22 is in good order.

23 And then we will continue with land use  
24 and socioeconomics, and then hopefully conclude  
25 either on schedule, or ahead of schedule.

1           With that, thank you very much. We are  
2 concluded for today.

3           MR. REEDE: May I ask --

4           PRESIDING MEMBER PERNELL: Thank you all  
5 for coming and staying.

6           (Whereupon, at 8:20 p.m., the hearing  
7 was adjourned, to reconvene at 9:00  
8 a.m., Thursday, February 20, 2003, at  
9 this same location.)

10                   --o0o--

## CERTIFICATE OF REPORTER

I, JAMES RAMOS, an Electronic Reporter,  
do hereby certify that I am a disinterested person  
herein; that I recorded the foregoing California  
Energy Commission Hearing; that it was thereafter  
transcribed into typewriting.

I further certify that I am not of  
counsel or attorney for any of the parties to said  
hearing, nor in any way interested in outcome of  
said hearing.

IN WITNESS WHEREOF, I have hereunto set  
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